DOCUMENT RESUME

ED 303 922 EA 020 767

AUTHOR Harrison, John G.
TITLE A Comprehensive Student Information System: A Report Prepared for the California Postsecondary Education Commission by the Wyndgate Group, Ltd., Report No. 88-32.
INSTITUTION California State Postsecondary Education Commission, Sacramento.
PUB DATE 24 Aug 88
NOTE 104p.
AVAILABLE FROM Publications, California Postsecondary Education Commission, 1020 Twelfth Street, Third Floor, Sacramento, CA 98514 (free).
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS Access to Information; Compliance (Legal); Database Design; *Database Management Systems; Databases; Educational Policy; Elementary Secondary Education; Information Dissemination; Information Needs; *Information Systems; *Information Utilization; Politics of Education; State School District Relationship; *Student Records
IDENTIFIERS *California

ABSTRACT

This report addresses the technical and legal issues attendant to the implementation of a comprehensive student information system in California. It documents the legislative origins of the study and the conditions of state-level information systems within California and other states. It then describes the legal issues arising from the collection, use, and distribution of student information. The latter part of the report is directed toward California's policy analysis needs and discusses how a model state-level student information system could be implemented for subsequent evaluation. The final chapter provides a series of 14 findings and 9 recommendations for future action. Appended are (1) a sample questionnaire used to solicit information from California and other states; (2) characteristics of student information systems in other states; and (3) candidates for data elements to be maintained by segmental offices. Statistics and diagrams are included. (TE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

EA

ED303922

A COMPREHENSIVE STUDENT INFORMATION SYSTEM

JOHN G. HARRISON

THE WYNDGATE GROUP, LTD.

BEST COPY AVAILABLE

EA 020 767

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it

☐ Minor changes have been made to improve reproduction quality

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

E. Testa

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION REPORT 88-32
PUBLISHED SEPTEMBER 1988

THIS report by John G. Harrison of the Wyndgate Group, Ltd., is one in a series of consultants' reports on important issues affecting California postsecondary education that the Commission has published over its 15 years as part of its responsibility "to promote diversity, innovation, and responsiveness to student and societal needs." These reports are brought to the California Postsecondary Education Commission for discussion rather than for action, and they represent the interpretation of their authors rather than the formal position of the Commission as expressed in its adopted resolutions and reports containing policy recommendations.

The Policy Evaluation Committee of the Commission discussed this report at its meeting on September 19, 1988. Additional copies of the report may be obtained from the Library of the Commission at (916) 322-8031 Questions about the substance of the report may be directed to Mr. Harrison at (916) 369-0666.

Like other reports published by the Commission, this document is not copyrighted. It may be reproduced in the public interest, but proper attribution to Mr. Harrison as its author and to Report 88-32 of the California Postsecondary Education Commission is requested

A COMPREHENSIVE STUDENT INFORMATION SYSTEM

JOHN G. HARRISON

A REPORT PREPARED FOR THE CALIFORNIA POSTSECONDARY EDUCATION COMMISSION BY THE WYNDGATE GROUP, LTD.

AUGUST 24, 1988

CONTENTS

LETTER OF TRANSMITTAL

1 INTRODUCTION 1

Background 1

Shortcomings of Existing Student Information Systems 2

Benefits to be Derived from the Study 4

2 EXISTING STUDENT INFORMATION SYSTEMS 7

Introduction 7

Student-Based Information Systems Operating in Other States 8

Information Obtained from Telephone Inquires and Formal Surveys 9

Student-Based Postsecondary Education Information Systems 12

Student-Based K-12 Information Systems 14

Information Obtained from Interviews with Education Officials in Other States 15

Reflections on Commonly Reported Characteristics 15

The Florida Experience: A Case Study 18

Student-Based Information Systems Operating Within California 21

3 THE LEGAL ASPECTS OF STUDENT INFORMATION SYSTEMS 29

Differences in Legal Restrictions Applied to Information Users Engaged in Administrative and Policy Analysis Activities 29

Student Identification and Numbering Alternatives 30

The Impact of Federal Legislation Upon the Assignment and Use of Student Identifiers 35

The Avnegate Group, Ltd

Outcomes of the Investigative Phase 36

Tradeoffs Between the Social Security Number and a California-Specific Student Identification/Numbering System 40

4 A CALIFORNIA EDUCATIONAL CLEARINGHOUSE: INFORMATION COLLECTION AND DISSEMINATION POLICIES AND PRACTICES 43

Introduction 43

The Role of Unique Student Identifiers in the Operation of the Clearinghouse 43

Collecting "Core Locator" Information When a Student Initially Enrolls 44

Statewide Information Collection as It Relates to the Educational Clearinghouse 45

Information Gathering Procedures and the Flow of Information from Institutions to the Clearinghouse 51

Statewide Information Dissemination as It Relates to the Clearinghouse 53

5 FINDINGS AND RECOMMENDATIONS 59

Findings 59

Recommendations 68

APPENDICES

A Sample Questionnaire Used to Solicit Information from California and Other States 75

B Characteristics of Student Information Systems Operating in Other States 81

C Candidate Comprehensive Student Information System Data Elements to be Maintained by Segmental Offices 85

DISPLAYS

1. Summary of State Responses to the Commission's Survey 11

2. Student Identifiers Employed in States That Operate State-Level Student Information Systems 11

3. A Summary of State and Federal Laws and Regulations Governing the Use of Student Identifiers and Student Information 31

4. The Effect of the Grandfather Clause Contained in the Federal Privacy Act of 1974 on an Institution's Ability to Require Social Security Numbers Today 36

5. A Summary of the Legal Implications of Various Student Identification/Numbering Systems 41

6. Comprehensive Student Information System Locator Information, Reporting Frequencies, Reporting Points, Information Collected, and Reporting Agents Organized by Element 49

7. Comprehensive Student Information System Locator Information, Reporting Points, Information Collected, and Reporting Agents Organized by Collection Point/Time 50

8. Information Flow Within the Comprehensive Student Information System 52

9. Information Flow Between Information Users, Information Providers, and the Educational Clearinghouse 54

FIGURES

1. Student Data Element Candidates for Inclusion in the Comprehensive Student Information System Data Bases Maintained by Segmental Offices - Linked to Progression Entries Maintained in the Clearinghouse 86

The Wyndgate Group, Ltd

2. Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by Segmental Offices - Linked to Objective Entries Maintained in the Educational Clearinghouse 87

3. Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by Segmental Offices - Linked to Test Score Entries Maintained in the Educational Clearinghouse 87

4. Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by Segmental Offices - Linked to Completion Entries Maintained in the Educational Clearinghouse 88

5. Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by the Student Aid Commission - Linked to Student Aid Entries Maintained in the Educational Clearinghouse 88

The Wyndgate Group, Ltd.

THE WYNDGATE GROUP, LTD.

9310 Tech Center Drive • Suite 230 • Sacramento, CA 95826 • (916) 369-0666

September 6, 1988

Dr. Kenneth B. O'Brien
Interim Executive Director
California Postsecondary Education Commission
1020 12th Street
Sacramento, CA 95814

Dear Dr. O'Brien,

I am writing to transmit the final draft copy of our report addressing the technical and legal issues attendant to the implementation of a comprehensive student information system within California.

The enclosed report has been prepared following a careful review of the charge to the Commission as described in AB 880 (Education Code 99170-99174), the Commission's Feasibility Plan for a Comprehensive Student Information Study (March 1986), and the transcript of selected progress reports provided to the Commission since adoption of the March 1986 Feasibility Plan.

The report documents the legislative origins of the study and the condition of state-level student information systems within California and other states. It also describes the legal issues attendant to the collection, use, and distribution of student information, establishes a model state-level student information system for subsequent evaluation, and provides a series of findings and recommendations for future action.

Throughout our investigations, our work has been greatly assisted by legal, program, and technical staff representing the University of California, California State University, California Community Colleges, California State Department of Education, California Student Aid Commission and California Postsecondary Education Commission. Also, we have benefited considerably from the information provided to us by program and technical managers in other states who routinely deal with state-level student information systems.

This draft report is submitted to the Commission for consideration as an information item at the September 18, 1988 meeting. We look forward to meeting with you and the Commission at that time to provide testimony, respond to questions, and receive comments on the report.

Sincerely,

John

John Harrison

CHAPTER 1 INTRODUCTION

Background

Education Code Sections 99170-99174 (enacted via Assembly Bill 880, Vasconcellos) directed "the California Postsecondary Education Commission, in cooperation with the State Department of Education and the public and private postsecondary education segments to . . . develop a feasibility study plan for a study to provide comprehensive information about factors which affect students' progress through California's educational system, from elementary school through postgraduate education." To this end, the legislation directed the Commission to consider the types and kinds of student information that would be required to document:

- Student progress through elementary and secondary schools
- Transitions from secondary to postsecondary education
- Transfer among, and retention within, the postsecondary education segments
- Differential attendance patterns at all educational levels

AB 880 identified the objectives for the Commission's study, which were directed towards improving the State's ability to understand:

- The effect of programs directed towards improving persistence upon a student's success in attaining his/her terminal educational objective;
- Differences among population subgroups in terms of their scholastic decisions and the subsequent effect of these decisions upon the attainment of educational objectives; and
- Bridges and barriers presented to students throughout their educational careers and the effect of such bridges and barriers upon student ability to move among and within segments.

The Commission's initial response to this charge was fulfilled through publication of its March 1986 report, *Feasibility Plan for*

The Myrdgate Group Ltd

a Comprehensive Student Information Study. In that report, the Commission described the types and characteristics of student information that, if collected, analyzed, and employed in the development of future educational policy, would be responsive to legislative intent. The report also provided cost estimates to gather such information on a one-time basis to support the study called for in AB 880. Finally, the report concluded that the most cost-effective method of addressing the issues contained in AB 880 would -- in the long term -- be realized through the development of an ongoing comprehensive State-level longitudinal student information *system* supporting consistent and uniform data collection and reporting procedures. The Commission's report affirmed that development of such a system represented a more viable fiscal and philosophical response to legislative intent than the *study* suggested in AB 880.

Shortcomings of Existing Student Information Systems

Virtually every California postsecondary education, and a number of K-12 institutions[1] maintain automated student systems that record various biographic, scholastic, and student achievement information elements. In many instances individual institutions provide student information "extracts" to their respective district and segmental[2] offices to assist in various planning and management activities. While, in any single term, these institutions and segments produce copious amounts of student information, the information exhibits two common shortcomings when viewed in the context of the AB 880 charge:

- It lacks uniformity, consistency, and comparability among and between institutions and segments. Segmental student information systems cannot readily support the types of policy analysis/educational research called for in AB 880 because the nature and extent of student data varies considerably across segments. This condition should not be viewed as an inherent failing on the part of the institutions and segments, but rather as recognition that these systems were developed to

1. Unless qualified to the contrary, *institutions* refers to individual K-12 schools and postsecondary education colleges and universities.

2. *Segments*, as used throughout this report, refers to the California State Department of Education, University of California, The California State University, California Community Colleges, and independent California colleges and universities (considered in their entirety) unless specifically indicated to the contrary.

address local, regional, or systemwide management needs and therefore reflect individual institutional roles and missions, localized resource surpluses/constraints, unique institutional/segmental charters, etc.

- It is not "tagged" with universally recognized, permanent, and unique student identifiers that can be used to assemble longitudinal information profiles. First, most California K-12 schools do not assign permanent, unique student identifiers at all, whereas, their postsecondary education counterparts *do* support unique identifiers for their students. Of those K-12 and postsecondary education institutions that employ student identifiers, the identifier may not be:

  a. Unique within the jurisdiction in which it is issued (it may be reused after the student leaves the school, district, or segment),

  b. Unique within the State (different institutions and segments employ similar coding structures),

  c. Coded in a uniform pattern or format (different institutions may use 6, 7, 8, or 9 digit/letter identification/numbering systems),

  d. Reported to institutions in which a student may subsequently enroll, particularly if the student leaves the school, district, or segment in which the identifier was originally issued or if the student stops-out for an extended period of time, or

  e. Forwarded to district, segmental, or State-level offices and, if so, accompanied by student scholastic, biographic, etc. data.

The Commission's report suggested that these impediments could be overcome through the implementation of a State-level student information collection and reporting program that would:

- Provide for the State-level assignment of permanent, unique, and uniformly coded student identification numbers to students,
- Require/urge students (or their parents) to provide such identifiers when enrolling in a California educational institution,
- Require institutions, districts, and segments to employ the unique identifier when encoding student information,

- Routinely gather consistent, comparable, and standardized information from public and private K-12 and postsecondary education institutions,
- Maintain and enforce information privacy policies/procedures consistent with State and federal statutes while providing for timely access to such information for legitimate educational research and policy analysis purposes, and
- Capitalize upon existing segmental and State-level student information collection and reporting programs in the development of the new State-level information system.

The Commission's report cautioned that such a system would likely precipitate a net increase in the State's overall student information gathering activities, though, such increases could be partly offset by reductions in existing segmental or State-level information reporting procedures through the elimination of redundant data collection activities. The Commission's report also noted that a new State-level student information system would require supplemental funding to underwrite its development, maintenance, and administration.

Following publication of its report, the Commission requested and received funding for a study that would describe the characteristics of a state-level student information system and identify its attendant fiscal requirements and legal constraints. In July 1987, the Commission solicited competitive bids for this study and, following evaluation of vendor proposals, selected The Wyndgate Group, Ltd., and Arthur Young & Company to undertake the study.

Benefits to be Derived from the Study

Information systems do not, in and of themselves, contribute to improved understandings of the complexities of the educational process. Their benefits lie in the constructive uses to which the system's information base may be applied. California's current inventory of "management-based" information systems provide valuable information to assist in day-to-day and year-to-year administration but are so constrained by their origins and intended uses that they lack the ability to effectively address the state's educational research and policy analysis needs.

For example, current systems can readily describe -- at least in the aggregate -- the condition of selected student populations on a term-by-term or year-by-year basis.

At the K-12 level, they can indicate how many third, fourth, fifth, etc. grade students are enrolled in a particular school or district, note how many teachers instruct in a specific district and subject matter, describe the ratio of teachers to students, document instructors' salaries by credential type, and indicate teaching staff differentiated by ethnicity.

Within postsecondary education, they can enumerate the number of first-time freshmen admitted to the University and State University systems, describe student enrollments differentiated by major, gender, ethnicity, and a myriad of other student attributes. They can produce graph after graph of student credit load profiles and display segmental budgets and expenditures in seemingly endless permutations and combinations.

But, current systems typically lack the information needed to support educational research and policy analysis because most information is oriented towards institutionally based student services or segmental fiscal planning. These systems are unable to provide more than mere snapshots of selected student populations, are almost always constrained to describe conditions within an individual district or segment, lack the ability to compare the characteristics of different student populations across segmental boundaries, and can only rarely provide multi-year descriptions of common student populations; particularly in those cases where students stop out or transfer several times. In addition, existing systems cannot document a student's previous educational history or, following separation from an institution/segment, a student's subsequent enrollment experiences. Finally, existing systems lack continuity with respect to a student's academic career, particularly in the case of extended term drop/stop-outs.

This study represents California's first step toward removing constraints and forming a new, and more comprehensive student information system capable of assisting those engaged in educational research and policy analysis. In a general sense, the benefits to be derived from the development of such systems will include giving accurate information about individual differences between students and how these relate to what happens to them in school. This will give an empirical basis for research into issues such as preparation and performance, drop-

outs, "stop-outs," differential treatment, transfer, time to degree, and institutional performance. All of these issues are of current State-level interest and where policy strategies have been frustrated by the lack of good data. To the extent that research reveals institutional (rather than individual) commonalities associated with persistent patterns of educational success and failure, this information can lead to identifying successful intervention strategies.

CHAPTER 2 EXISTING STUDENT INFORMATION SYSTEMS

Introduction

California's interest in improving the quality of its State-level student information is shared by other states. In considering the AB 880 charge, the consultants conferred with parties in other states to (a) identify statewide student information programs that were either implemented or under serious consideration and, where systems had been placed in operation, (b) attempt to assess their successes to date. This action was initiated with the expectation that California could capitalize upon the progress made by other states and, through prior knowledge of their experiences, sidestep the pitfalls and implementation barriers that other states may have experienced. To this end, the consultants employed the following information-gathering procedures:

- Surveys were administered to other state-level coordinating councils, postsecondary commissions, and state offices of education requesting information describing proposed and existing systems.
- Telephone and personal interviews were conducted with acknowledged experts in the field of state-level information systems.
- Site visits were made to states where survey responses or telephone inquiries indicated the potential applicability of selected components of other state's systems to California's needs.

This chapter also describes the consultant's efforts to gain an understanding of the characteristics of existing and proposed student information gathering and reporting systems in California. Agencies/associations/segments that supplied information in the course of this portion of the study included:

- The State Department of Education,

- The public postsecondary education segments,
- The California Student Aid Commission, and
- The California Postsecondary Education Commission.

As this chapter will note, state-level student information systems are still in their infancy throughout the United States and there are few clear cut, obvious solutions to the problems the Commission seeks to address. Further, California's existing student-based information systems -- oriented as they are to segmental management issues -- lack the information quality and year-to-year student linkages necessary to support a state-level policy analysis information base.

There are two important California-relevant issues that the reader should appreciate in reviewing this chapter:

First, California, unlike many other states surveyed in the course of this study, has recognized that a comprehensive planning effort must precede system implementation, and not follow it.

Second, the unique and individual needs of the State's various educational providers and information users must be considered within the context of a common implementation strategy rather than in a piecemeal, after the fact fashion.

Student-Based Information Systems Operating in Other States

Many of the student information collection and reporting problems facing California are common to other states. In the course of this study the consultants investigated the progress other states had made in confronting and resolving the issues attendant to improved state-level student information reporting. The intent of this investigation was first, to identify those issues common to California and other states that had been successfully addressed and resolved and, second, to evaluate the applicability of these solutions in terms of California's needs. Three data gathering activities were undertaken to ascertain conditions in other states:

- First, Commission staff conducted telephone interviews with postsecondary coordinating agencies, boards, postsecondary education systemwide offices, and State Departments of Education in other states requesting information describing their state-level student information collection programs with par-

ticular emphasis on the use of unique personal identifiers. Telephone surveys were employed as a first step in a two part data gathering program. The telephone surveys were intended to (a) determine which states and, within each state, those segments supporting systemwide student information systems and (b) identify knowledgeable contact persons within those segments for follow-up activities using a formal survey instrument.

- Second, the consultants, working with the assistance of Commission staff and the Task Force, developed and distributed survey instruments to segmental offices in other states that had responded positively to the telephone inquiries described previously. The survey was designed to capture information describing the origin, extent, operating characteristics, legal foundation, and costs of developing and maintaining systemwide student information systems. A copy of this survey instrument appears in Appendix A.
- Finally, the consultants held personal interviews with selected education officials in other states and received a first-hand briefing on the characteristics of the student information systems used in their states.

Information Obtained from Telephone Inquiries and Formal Surveys

In the course of the study, Commission staff contacted various K-12 and postsecondary education officials within each state and attempted to obtain the name of a person within each segment qualified to complete a survey describing the segment's student information gathering and reporting systems. A series of problems emerged in the course of the surveying effort that served to extend the term of the study and inhibit the consultant's ability to obtain a comprehensive description of other states' activities. In some instances:

- Referrals within a state proved somewhat difficult to obtain necessitating numerous calls within a state to obtain the name(s) of persons qualified to complete a survey.
- Survey responses from the referrals did not conform to the Commission's survey format and reporting standards, requiring multiple back-and-forth telephone contacts.

- Persons contacted within K-12 and postsecondary education segmental offices appeared to be (a) unaware of the nature and extent of their segment's student information system(s), (b) unable to provide the name(s) of the person(s) to whom survey forms could be forwarded, and/or (c) unresponsive to the Commission's requests for assistance.

Notwithstanding these impediments, the consultants were able to amass a considerable body of information describing the nature and condition of student information systems operating in other states. Results of the survey program are summarized in Displays 1 and 2, and an expanded summary of student information systems in other states appears in Appendix B.

Survey responses fell along the following lines:

- Of the 100 possible respondents (49 states and Washington, D.C.), 42 failed to return a survey or provide the requested information via telephone.
- Nonresponse rates were highest among K-12 agencies; of the 42 nonresponding agencies, 28 were K-12 agencies and 14 were postsecondary education agencies.
- Of the 58 respondents to the Commission's survey, 38 (66%) indicated that their segment *did not* support a systemwide student information program and, of these, nine states (18 respondents) reported that neither the K-12 nor postsecondary education segment maintained state-level student information systems employing individual student records.
- Among the 20 respondents (34%) indicating their segment employed a systemwide student information system:
  1. Eleven responded to the initial telephone inquiry and provided written responses using the project survey form
  2. Three provided verbal responses via telephone in accordance with the survey instrument (Commission staff copied their comments onto the forms in the course of their discussion with the respondent)
  3. Four provided abbreviated verbal comments over the telephone describing the characteristics of their segment's student information systems.
- The Social Security number was the first choice as a student identifier among those segments that had implemented state-level student information systems (70%). Only two of the 20 respondents in this category reported that they had

Display 1 Summary of State Responses to the Commission's Survey

Response Status	Postsecondary Education		K-12		Both Segments	
	Number	Percent	Number	Percent	Number	Percent
State did not respond to the survey	14	28.0	28	56.0	42	42.0
State *does not* support a state-level student-based information system	20	40.0	18	36.0	38	38.0
State *does* support a state-level student-based information system	16	32.0	4	8.0	20	20.0
Total	50	100.0	50	100.0	100	100.0

Display 2 Student Identifiers Employed in States That Operate State-Level Student Information Systems

Student Identifier Used	Postsecondary Education		K-12		Both Segments	
	Number	Percent	Number	Percent	Number	Percent
Social Security	12[1]	75.0	2[3]	50.0	14	70.0
Locally developed identifier	1[2]	6.2	1[4]	25.0	2	10.0
Not known - not reported	3	18.8	1	25.0	4	20.0
Total	16	100.0	4	100.0	20	100.0

1. Massachusetts uses student Social Security number and name as its unique student identifier.
2. North Dakota uses student name and address as its unique student identifier.
3. Florida uses a Florida-specific developed student identifier.
4. New Mexico does not use a student identifier as it gathers aggregated student information only.

developed locally-developed identifiers in lieu of the Social Security number.

- 80% of the state-level student information systems reported via the Commission's survey were operated by postsecondary education institutions/systems.

While the information provided by the national surveying effort is necessarily limited due to the high nonresponse rate and the relatively limited number of operational student information

systems, the survey data obtained provide valuable insights into the progress other states have made in implementing system-wide and state-level student information systems.

A series of thumbnail sketches describing operational student data systems described in the surveys or obtained via personal interviews follow:

Student-Based Postsecondary Education Information Systems

New Mexico

The New Mexico Higher Education Data System was created in 1972 by the New Mexico Commission on Higher Education to gather data and maintain information on student enrollments and program completers. The system contains 80,000 individual student records. New Mexico uses the Social Security number -- voluntarily provided -- as its student identification mechanism. Students lacking, or declining to provide a Social Security number are issued a unique (substitute) identification number by the campus in which they are initially enrolled. The state-level data base is updated once each term (three times each year). Information housed in the Higher Education Data System is not collected with the intent of making it available for public use and, as such, information contained in the Education Data System is not released to other agencies, educational researchers, or parties outside the Commission.

Indiana

The Indiana Student Information System was created in 1977 by the Indiana Commission on Higher Education. The system currently supports 250,000 student records drawn from the state's public and private colleges and universities. Each student record is identified by an individual Social Security number or a substitute number where a Social Security number cannot be voluntarily obtained. Each institution is responsible for issuing alternate identification numbers in the event a Social Security number is not available or is not voluntarily provided. Records are updated once a year. Indiana information privacy statutes es-

tablish the policies regarding disclosure and use of information maintained in the Student Information System.

Massachusetts

The Massachusetts Board of Regents of Higher Education maintains a Research & Planning Enrollment & Degrees System (RPEDS) that reports enrollments within the state's 14 public colleges and universities. The system was initiated in 1984 through legislative mandate in order to standardize enrollment reporting within the state. The system maintains over 130,000 individual student records. Each record is identified using a combination of student name and Social Security number and contains student biographic, scholastic, achievement and program completion information. Records are updated each semester. The Massachusetts Board of Regents' Privacy and Confidentiality Regulations establish policies regarding information disclosure, use, and manipulation. Originally funded through a $500,000 one-time legislative appropriation, RPEDS is currently funded via the Regents' Computer Network as a routine annual budget item ($300,000 annually).

Minnesota

Minnesota's Student Record Data Base was created by the state's Higher Education Coordinating Board in 1983 to maintain enrollment data for all public and private postsecondary education institutions. Approximately 236,000 individual student records are reported to the Board annually in the fall. The Higher Education Coordinating Board and the Minnesota State Attorney General's Office jointly developed the information disclosure and use policies attendant to this system. The Coordinating Board has developed a nondisclosure policy governing the collection, use, and destruction of student information that:

1. Identifies data elements that may be collected,
2. Provides examples of research that may be conducted using the information, and
3. Requires that any information released to a third party be "non-identifiable" (e.g., not identifiable with an individual student)

Minnesota's information disclosure policy specifically notes that its purpose is to satisfy both federal and state laws concerning

access to, use of, dissemination of, and ultimate destruction of private data originally maintained by educational institutions.

Louisiana

The Louisiana Statewide Student Profile data system was created in 1977 by the Louisiana Board of Regents. The system reports upon the status of 170,000 students each year. Records are updated each term (three times each year). A student Social Security number is used as the state's student identifier, however, individual institutions substitute a student's driver's license as an alternate identification number in the event a Social Security number cannot be obtained. Student information maintained in the Statewide Profile is classified as confidential and, under state law, is not made available to any other agency or party outside the Board of Regents.

Student-Based K-12 Information Systems

Texas

The Public Education Information Management System (PEIMS) was inaugurated by the Texas State Board of Education (TEA) in 1986 in response to legislative, TEA administrative, and statutory requirements information requests. PEIMS serves 1,071 school districts and is currently in the second year of a five-year implementation program. The PEIMS system -- when fully implemented -- will maintain information describing district budgets, personnel, facilities, student drop-outs and other student demographic characteristics, ADA and course enrollments, and student achievement and testing information. The student demographic data collection and reporting phase of the project will be pilot tested in 1988-89 with 100% district reporting scheduled to begin in 1989-90. A Student Social Security number (or a to-be-determined alternate identification number), name, sex, ethnicity, date of birth, citizenship, socioeconomic status, and handicap condition will be reported .

State officials with whom the consultants conferred noted that PEIMS has realized both a high (99%) reporting compliance rate among districts and a decrease in district reporting burden since it inauguration. These officials feel that PEIMS' success is attributable in large part to the Regional Education Service Centers that service district information processing needs. These 20 stra-

tegically placed centers act as a liaison between the districts and the central TEA with regard to information collection and processing. The PEIMS is funded entirely by the state and required approximately $6.3 million to implement. PEIMS' annual operating budget is estimated at $650,000 for the central office and $600,000 for the 20 regional centers. Total computing hardware costs once PEIMS is fully implemented are estimated at $2 million.

Information Obtained from Interviews with Education Officials in Other States

Shortly after the initiation of the study, the National Center for Education Statistics hosted an Elementary-Secondary Education Management Information System conference in Orlando, Florida. This conference -- co-sponsored by the Florida Department of Education and the National Center for Education Statistics -- brought together over 100 K-12 officials from various states to discuss state-level student data collection programs, intersegmental cooperative ventures in the use of student specific data, and operational characteristics of student-based information systems.

The consultants attended the two-day conference and met with a number of educational administrators to discuss their student information gathering and reporting programs. In the course of the conference's activities the consultants interviewed a number of K-12 administrators representing Florida, Colorado, Texas, Georgia, South Carolina, and Tennessee. While the thoughts expressed by these state officials varied somewhat, a number of commonly held opinions were repeated throughout the two days of interviews and discussions. Those observations having a common thread are reproduced here to reflect the flavor of the discussions held with these administrators. These comments should, of course, be considered in the context within which they were offered; as educated opinions rather than as irrefutable maxims.

Reflections on Commonly Reported Characteristics

- The *voluntary* use of a student Social Security number was the most frequently used mechanism for student identification in other states. Compliance for the Social Security number is

particularly high where justification for its collection and use is provided to students (and their parents) at the time the number is initially collected.

- Agents responsible for initiating new systemwide or state-level information requirements -- whether located within the legislative/executive branches or systemwide offices -- tend to *overestimate* the capacity and flexibility of existing campus and/or school district systems (and their supporting staffs) to respond to new state-level or system-level information requirements.

- The parties responsible for introducing new/different state-level or systemwide information system programs consistently *underestimate* the amount of staff training required to change existing systems or implement new ones to address emerging information reporting requirements. Training shortfalls were thought to be particularly acute in the areas of ad hoc reporting, electronic information transfer, data element definition, information collection, editing, and maintenance, and interface standards between local and state systems.

  One information systems manager with whom the consultants met observed:

  > Our training budget could have been tripled and it still wouldn't have been enough. We just never counted on having to train our data processing staff, secretaries, and administrators how to use their own existing systems.

- Phased implementation programs represent the most viable approach to large scale system implementation. Even small educational systems or states did not attempt to implement a state or systemwide information system without providing adequate time for system installation, training, and process integration within the daily work flow.

- Most statewide and systemwide student information systems currently in existence were developed exclusively to address administrative record-keeping needs. Even though the information used to support ongoing administrative programs provided a rich source of information for policy analysis, (a) few state agencies exploited such information for this purpose and (b) little state-level funding was provided to gather and maintain information for this purpose.

- There was a general reluctance among educational administrators who dealt with systemwide and statewide student information systems to discuss privacy issues. Privacy standards appeared to be unevenly applied among and within states and, in some instances, considered as a second order issue during or following system implementation. A number of educational administrators said that they relied upon the personal integrity of their data processing professionals to maintain the confidentiality of their system's information, though, they often acknowledged that their staff had never received formal instruction in the privacy laws applicable to the information in their charge.
- There was little evidence that implementing agents adopted a state-level perspective prior to undertaking large scale educational information systems. For the most part, those educational information systems in existence were developed exclusively by an individual K-12 or postsecondary education segment without consideration of the applicability or impact of such systems upon other segments. To the extent that intersegmental issues were considered, they tended to center on the electronic transfer of transcripts between high schools and colleges and often ignored other information interface/-exchange opportunities.
- Support staff have important influences upon the success of large scale information systems programs. One educational administrator with whom the consultants met said that a principal's secretary plays a more important role in determining the success of an information gathering and reporting system than do district officials.
- Many of successful state-level information system programs are characterized by top down funding, with statutory origins in the executive or legislative branches. Institutional efforts to initiate new, or significantly modify existing administrative record keeping programs have been marginally successful.
- Information exchange and sharing among and between districts or postsecondary institutions within the same state is relatively rare. Student information is typically collected at the institutional level, audited within district offices, and forwarded directly to the state where it is reported to governmental officials and subsequently archived or destroyed.

The Florida Experience: A Case Study

Florida, as one of the sponsors of the Elementary-Secondary Education Management Information System conference, played a prominent role in its program. In the course of the discussion and demonstration sessions held during the conference, a number of state and locally based Florida officials provided descriptions of the motivating factors leading to the creation of the Florida Information Resource Network (FIRN) and the experiences obtained as the system evolved.

In many respects the Florida experience -- as relayed by those in attendance -- provides a positive example of ways in which large scale state-level student information systems can be effectively implemented. It is for this reason -- the applicability of the Florida experience to California's aspirations -- that a brief chronological history and program description is offered here. The reader should appreciate that not all of the benefits and impediments that Florida enjoyed in its systems development activities are necessarily applicable to California.

In 1980-81 the Florida Department of Education -- acting in response to legislative directive -- established a pilot student records program designed to track students beginning with their initial attendance in a public school and continue (as applicable) through high school graduation, and attendance at a college or university. In brief, the enabling legislation called for the design and development of a statewide comprehensive student information system that would:

- Automate existing manual records and record-keeping procedures,
- Reduce district and institutional reporting requirements, and
- Provide the legislative and executive branches with verifiable longitudinal data describing various aspects of Florida's student population.

The state responded to this directive through the creation of the Florida Information Data Base (IDB) system. As currently configured, the IDB addresses only elementary and secondary school students' records, however, postsecondary educational institutions are currently under legislative mandate to develop comparable systems which will permit postsecondary education information to be (a) exchanged with IDB users and (b) accumulated at the state level.

The IDB maintains five types of information within an individual student's dossier:

- Student demographic information
- Student course-taking histories
- Exceptional student information
- End of year scholastic summaries
- Student "completion" status information (e.g., promotion, summer school, expulsion)

Individual student data is retained within the IDB for a five-year period after which it is destroyed unless required for auditing purposes.

The Florida system uses a 10-digit unique identifier -- assigned by school districts upon initial contact with the Florida educational system -- to uniquely identify each student's record. The first two characters of the student identifier denotes the district issuing the identifier and the remaining eight are made up of locally generated unduplicated random numbers. In the course of deciding upon student identifiers, Florida considered and rejected use of the Social Security number. Those charged with selecting a student identifier for use within the IDB rejected the Social Security number for the following reasons:

- Florida public school records had never included Social Security numbers, and no historical justification for its adoption could be identified.
- Existing state regulations did not provide for the collection of Social Security numbers as a condition of enrollment, and the Florida K-12 system therefore lacked the statutory authority to require students (or their parents) to provide it.
- Use of the Social Security number was thought to introduce privacy and governmental intervention issues vis-a-vis the Internal Revenue Service and the Immigration and Naturalization Service that could contribute to abuse of the identifier and widespread noncompliance.
- At the time the Florida system was inaugurated, most students did not hold Social Security numbers (federal legislation requiring many children aged five or older to obtain a Social Security number had not been adopted in 1980-81).

- Use of the Social Security number was thought to deter some undocumented aliens from participating in the Florida K-12 system.

The Florida IDB currently maintains over 2 million Florida student records. Each record is updated on to five times a year based upon individual student enrollment patterns. If a student leaves one district and transfers to another, his/her records are manually transmitted between districts and reintroduced within the IDB by the "receiving" district. The "donor" institution retains a copy of a transferring (or departing) student's record for the purpose of state-level auditing but ceases record maintenance.

All state-mandated annual, quarterly, and ad hoc school and district reporting is prepared by the Florida Department of Education for the 67 school districts using the IDB. Selected reports required by external agents are also prepared by the DOE using the IDB as an information source, however, such information is made available in aggregate form only to ensure the confidentiality of individual student records.

Among those district superintendents with whom the consultants spoke, most agreed with the program's objectives (even though legislatively imposed) and were particularly supportive of the benefits afforded to the districts by reduced state-level reporting requirements.

Some district superintendents described the implementation time frames established by the state as overly aggressive, though one state official responsible for state-level compliance with whom the consultant's spoke remarked,

> Our schools had four years to get used to the idea and to prepare. Most did nothing until they were formally advised by the DOE that they would be expected to deliver the data by June 1989.

This official observed that concern over implementation schedules reflected reluctance to change rather than unrealistic implementation scheduling.

To date, approximately 40 Florida school districts are operational under the IDB with the remaining 27 scheduled to join the program during the coming academic year.

Coordination between Florida's K-12 and postsecondary education segments vis-a-vis information exchange was viewed by system users as one of the more difficult operational issues to be

addressed, but one that time and continued familiarity with the system would overcome.

State regulations require that all public postsecondary institutions report a student's academic standing and progress towards a degree/certificate to the student's high school within the first year of college attendance. Future versions of the IDB will provide electronic transfer of such information between the K-12 and postsecondary segments.

At this writing, only a few Florida public postsecondary institutions are using electronic interfaces to access high school seniors' records during application processing, though, the university system's uniform admission application form contains a release for the university to "electronically" request high school academic transcripts. While Florida's *collegiate* institutions utilize the Social Security number as a student's unique identifier, the institutions also collect the unique student identifier used by the K-12 system and carry both numbers in their student information systems.

Negotiations are currently being held between the state and the College Board and American College Testing Corporation to incorporate Florida's unique student identifier as part of each Floridian's achievement test record. The intention of incorporating the Florida student identifier in these records is to facilitate electronic inclusion of student test score results directly within the IDB for subsequent distribution to institutions.

Student-Based Information Systems Operating Within California

This section of the report describes existing student information systems operating within California's educational systems, agencies and departments. This information was obtained from survey responses provided by the University of California, The California State University, the Community Colleges, the Student Aid Commission, the Department of Education, and the Postsecondary Education Commission. A sample questionnaire is enclosed as Appendix A on pages 75-80.

The questionnaire requested the following information:

- A description of existing state-level student information systems;

- The reporting frequency and populations surveyed by these systems;
- The cost of initially establishing the systems; and
- The cost of underwriting the ongoing operating of the systems.

The University of California

The University of California's Corporate Student System was initially created to allow the Office of the President to respond to external reporting requirements such as CPEC and HEGIS, provide data for internal analyses, and undertake special studies. System implementation required nearly four years and is estimated to have cost $700,000 to develop and implement. This system requires approximately $100,000 annually to underwrite the ongoing operation of the following four corporate data bases:

- Student Registration Data Base: Each of the University's 158,000 enrolled students and approximately 33,000 degree recipients is recorded in this data base annually. Information is updated twice each term using data extracted from the campus systems and from the undergraduate admission data base (described below). The registration data base contains demographic, previous academic history, test score, term-by-term registration and student performance data, and degrees awarded information. Data collection began in the 1982-83 academic year.
- Undergraduate Admission Data Base: The data base contains student demographic, applicant eligibility, admit level, special action status, previous academic history, and test score data for the University's 70,000 annual admission applicants. Information is updated monthly with data extracted from campus systems and from a central processing system maintained by an outside vendor.
- Student Longitudinal Data Base: This data base maintains much of the same information contained in other Corporate Student data bases but arranged in such a way that students can be viewed as part of an entering cohort and their persistence tracked in a longitudinal fashion. The data base contains information describing students who entered the University in Fall 1982 and thereafter. This data base excludes

the small number of undergraduates and all Health Science Residents in the teaching hospitals.

- Financial Aid Data Base: This annual data base maintains information on all students receiving some form of financial aid. Records are updated three times each year with data extracted from the systems on each campus and from the registrant data base. Approximately 91,000 students are included in the data base each year. Data are available beginning with the 1982-83 award year.

The University of California system employs different forms of student identifiers among its nine campuses though all campuses collect and record students' Social Security numbers. Some campuses use the Social Security number as a unique student identifier while others employ locally assigned identification numbers.

The University estimates that each campus spends $30,000 each year to generate information for use by the Corporate Student System. The information contained in the Corporate Student System is a subset of the data needed by the campus to carry out its responsibilities. As a policy matter, campuses are not required to collect data solely for use by the Office of the President.

The California State University

The California State University System maintains four automated student-based information systems. Development of these systems began in 1973 in response to a systemwide need to provide more timely and accurate enrollment reporting and to assist in University research. No estimates are available on system development costs.

The four student records data bases supported by the Chancellor's Office include:

- Enrollment Reporting System, Students (ERSS): This data base contains approximately 10,500,000 student records dating back to the Fall 1973 term. The data base is updated four times each year (once each term).
- Enrollment Reporting System, Graduates (ERSG): This data base contains approximately 660,000 entries, each of which

reflects a student graduation record. The system is updated once each year. Information is available beginning with 1975.

- Enrollment Reporting System, Applicants (ERSA): This data base was created in 1984 to meet systemwide needs for improved admission application reporting. The data base is updated four times annually (once each term).
- Financial Aid Data Base: This data base was created in 1982 in conjunction with the establishment of the State University's Grant program. Approximately 22,500 recipients are added to this data base each year.

The State University system as does the University of California system employs different forms of student identifiers among its campuses though all campuses collect and record students' Social Security numbers. Some campuses use the Social Security number as a unique student identifier while others employ locally assigned identification numbers.

The California Community Colleges

The California Community Colleges USRS Student Data System was developed in the mid-1970s to permit the system to respond more readily and accurately to information requests. The system is estimated to have cost $200,000 to design and develop over a four-year implementation period. There are approximately 1.3 million student records currently residing in the Student Data System covering 11 academic years. Community College districts report student biographic and enrollment information to the Chancellor's Office each term (excluding summer). Under current administrative policies, each district may employ the student identification/numbering system of its preference.

Automation levels and information systems vary widely among the 106 campuses and 70 districts. Under existing policy, individual districts are not required to utilize a specific student identification/numbering system. The Chancellor's Office has estimated that the individual institutions within the Community College system require $20,000,000 annually to support their local administrative computer systems.

In recent years the Chancellor's Office -- working in cooperation with the districts -- developed a feasibility study and funding program to provide for a systemwide upgrade of the Community Colleges' State-level information gathering and reporting

capability. This program called for the development of standardized data structures across institutional/district boundaries and the development of more accurate and timely reports to the Chancellor's Office. The Community Colleges' proposed information system program was not funded as part of the 1988-89 State budget.

California Community Colleges employ different forms of student identifiers among the 106 campuses though all campuses collect and record students' Social Security numbers. Some campuses use the Social Security number as a unique student identifier while others employ locally assigned identification numbers.

The California Student Aid Commission

The California Student Aid Commission provides more than 73,000 undergraduate grants and guarantees some 300,000 loans for students (or parents of financially dependent students) and helps others through specialized programs like teacher loan assumptions and graduate fellowships. For these purposes, the Commission maintains major grant data bases on program applications and recipients and maintains a data base of current and historical information on student borrowers.

The Commission utilizes a variety of computer systems in the administration of student financial aid programs. These systems support several data bases with basic academic and financial information necessary to evaluate students' eligibility for financial aid awards and to support program evaluation and research. The most common elements include family income, student income, financial dependency, educational level, class load, school of attendance, age, and citizenship. Records for some programs may include the following additional elements: grade point average, ethnicity, gender, number of family members, educational costs, required student and parental contributions to educational costs, amount of financial need, type of residence (on- or off-campus), parents' educational attainment, and parents' marital status.

The agency is in the process of procuring an integrated system which will automate all aid programs, however, this overview deals only with currently operational information systems. The Commission's information system program supports five student data bases, each of which is keyed to student Social Security numbers. They are:

- Cal Grant A, B, and C Master Files/Common Application Files: These data bases contain over 600,000 records describing Cal Grant applicants and 225,000 records describing aid recipients dating back to 1977. The Cal Grant A program grants awards to needy, academically qualified students; Cal Grant B to needy, disadvantaged students; and Cal Grant C to needy students pursuing occupational careers.
- Guaranteed Student Loan Program/California Loans to Assist Students (GSL/CLAS Data Base): This data base supports approximately 2,000,000 borrower records dating back to 1978. The Guaranteed Student Loan Program provides low-interest loans to both graduate and undergraduate students and the California Loans to Assist Students Program provides loans to qualified parents of dependent students, independent undergraduate students, and graduate and professional students.
- State Graduate Fellowship Program: This data base -- initiated in 1965 -- contains records describing applicants for, and recipients of State Graduate Fellowship grants. More than 100,000 records are available within this data base. The program provides awards to financially needy, academically qualified students pursuing an advanced or professional degree.
- Assumption Program of Loans for Education (APLE): This relatively new data base -- initiated in 1986 -- contains 1,900 records describing both applicants and recipients. This program provides student loan assumption payments to recipients who commit to teaching in designated California public schools.
- Paul Douglas Teacher Scholarship Program: This data base -- initiated in 1986 -- contains 1,125 records for both applicants and recipients in the program. This federal program provides college scholarships to outstanding high school graduates who demonstrate a commitment to pursue teaching careers.

The system currently serves at least three purposes: (1) grant program administration -- including application processing, award disbursement, tracking of students' academic progress, determination of renewal eligibility, and general record keeping; (2) loan program administration -- including issuance of loan guarantees, maintenance of current and historical borrower information, and support of default claims and collections activity; and (3) program evaluation and research. However, since these data bases were developed for administrative rather than research or reporting purposes, their implementation and

maintenance costs for research are not easily distinguishable from financial aid processing and administration expenses. As a consequence, no implementation or ongoing cost figures are available for any of the Student Aid Commission's information systems, though this information would be of marginal value in estimating future costs of interfacing with the CSIS because the Student Aid Commission's upcoming system procurements have yet to be realized.

The new Financial Aid Processing System (FAPS) will be capable of providing consolidated annual awards for all grant and loan programs for each CSIS recipient. The best unique identifier for FAPS/CSIS interface will be the Social Security number and such information will be available via telecommunications, magnetic tape, microfiche, and hard copy. This will enable the Commission to report on recipients in such a way as to identify all of the grant and loan awards (Commission administered) which have been awarded in a given year. This capability will simply and efficiently serve the needs of the statewide information system.

The California Postsecondary Education Commission

The California Postsecondary Education Commission maintains two student data bases:

- Student Enrollment Data Base: This data base -- established in 1976 in response to legislative mandate -- contains machine readable student enrollment information provided by the three public postsecondary education segments each Fall. The information is used primarily for policy analysis by CPEC research staff and other educational research agencies. The Student Enrollment data base contains 12-15 million records, which represent the enrolled student population in the three public segments over the past 11 years. While the data base supports individual records for each student enrolled each Fall term, the data base does not contain student identifiers.
- Degrees Conferred Data Base: This data base contains records for approximately 1,000,000 program completers. Here too, the data base supports individual records for each student completer but does not support student identifiers.

The Commission estimates that the two data bases cost between $100,000 and $200,000 to develop and $250,000 to $300,000 per year to maintain.

The State Department of Education

The State Department of Education maintains two systems which gather information from individual school districts; the California Assessment Program (CAP) and the California Basic Education Data System (CBEDS). Neither system was designed to serve as a student-based information system.

- The California Assessment Program: While the CAP system collects data on individual student achievement test results in grades 3, 6, 8, and 12, unique student identifiers are not employed. Selected student biographic data are collected as part of the information gathering process but an individual student cannot be tracked or otherwise identified using this information. Data collection began in 1974.
- The California Basic Education Data System: The State Department of Education administers the CBEDS to every school and school district annually in the Fall. This survey gathers information describing various district, school, teacher, and class activities. The information is collected at the school level, aggregated at the district and county level, and forwarded to the State Department of Education. Within the Department, survey instruments are edited for accuracy and recorded in machine-readable form. Data collection began in 1981. Each year CBEDS accumulates 750,000 classroom records (describing the student population by class) and 7,600 school records.

CHAPTER 3 THE LEGAL ASPECTS OF STUDENT INFORMATION SYSTEMS

Differences in Legal Restrictions Applied to Information Users Engaged in Administrative and Policy Analysis Activities

Stewardship obligations vis-a-vis student identifiers differ significantly between administrators charged to oversee the day-to-day operation of an educational institution and those concerned solely with policy analysis.

Institutional, district, and, under certain circumstances, system-wide administrators have a clear and obvious need to access individual student information. This need, however, brings with it an attendant legal responsibility to maintain personal information in a confidential manner and to exercise prudent measures to ensure that such information is not intentionally or inadvertently disclosed to parties who have neither the right nor privilege to access such information. Stewardship against intentional or inadverent disclosure encompasses obvious "outsiders," resident "insiders" (e.g., institutional staff), and, in some instances, even public agencies.

The policy analyst's role as an external agent poses a dilemma in terms of information confidentiality because analysts typically need access to both information contained in a student's record

Note: The legal opinions, inferences, and conclusions offered in this chapter are based on discussions held between the consultants and legal counsel representing segmental and agency offices. These accounts are intended to be informal in nature and do not reflect official opinions rendered by the State Attorney General's Office nor are they necessarily fully consistent with existing State and federal laws. These opinions, et al, are intended to reflect the consensus of opinion among legal staff with whom the consultants met regarding the likely interpretation of State and federal statutes in the information privacy area.

and unique identifiers that will "tag" students for the purpose of longitudinal tracking. Even though analysts may require unique identifiers to facilitate their research activities, they do not need to know a student's actual personal identifier in order to undertake their research. In fact, it is the unwanted and often inadvertent ability to isolate an individual using his/her personal identifier that serves to hinder policy analysts who conduct longitudinal studies because access to personal (rather than unique) identifiers imposes unsolicited and burdensome confidentiality restrictions upon their work.

The goal in implementing AB 880 is therefore to minimize the numbers of persons and agencies that must deal with *personal* identifiers and thereby avoid imposing confidentiality burdens on those who would employ student information in policy analysis.

Student Identification and Numbering Alternatives

The viability of the AB 880 concept clearly rests upon the availability of unique and consistently reportable student identifiers that can be tied to more extensive student information. Selecting an identifier for use in a statewide information collection and reporting system is, however, impacted by State and federal laws designed to ensure the privacy of student information and to establish the terms and conditions under which information may be disclosed to external agents. Those laws most directly affecting student numbering/identification systems are summarized in Display 3 on the opposite page.

Four student numbering and identification alternatives were evaluated in terms of their compatibility with applicable privacy laws in an effort to identify a numbering/identification system that would meet both the spirit and intent of the law while facilitating the collection and use of student information in accordance with AB 880's objectives. The four alternatives evaluated, and the issues considered for each alternative follow:

1. *Mandatory Use of the Social Security Number as a Statewide Unique Identifier*

   - May the State legally *require* a student (or his/her parents) to provide a Social Security number upon application for

Display 3 A Summary of State and Federal Laws and Regulations Governing the Use of Student Identifiers and Student Information

Jurisdiction	Statute(s) and/or Code Section(s)	Subject
All	Privacy Act of 1974 - Public Law 93-579, 7(A), 88 State 1896 (1974)	Regulates the classification, retention, and disclosure of information within the federal government. In particular, Section 7 of this act addresses information privacy as it relates to records identified by Social Security number.
CSU and UC	Ed. Code 67100	Specifies the privacy guarantees provided to students whose records are maintained by the CSU and the UC systems. Article 5 Privacy of Student Records 67141, enables private institutions to provide CPEC with descriptive data on their students so long as students cannot be personally identified.
CCC	Ed. Code 76200 et seq	Specifies the privacy guarantees provided to students whose records are maintained by the CCC system.
K-12	Ed Code 49060 et seq.	Pupil Records -- describes the parties that may be involved or concerned with such records, e.g., parents, school district. Defines record content and the procedures for record establishment, maintenance and destruction. Also describes accessibility to parents and procedures for challenging record contents veracity and applicability.
UC	Disclosure of Information From Student Records - Regents Regulations 10.00 et seq.	This UC regulation describes the disclosure policies for information obtained from campus student records files.
CSU, UC, and CCC	Information Practices Act - Civil Code 1798 et.seq.	Governs the classification, retention, and disclosure of information within State government. This act enables individual agencies to further define the regulation to address individual agency information needs and uses. It applies only to state agencies and specifically excludes K-12.
All	Public Records Act - Gov. Code 6250 et seq.	The law addresses the public's access to records "in possession of" public agencies. Originally modeled after the Federal Freedom of Information Act, this statute encourages disclosure of certain forms of information (e.g., parents viewing and modifying students' information).
All	Federal Student Privacy Act - 20 US Code Sec. 1232g, Title 34 code of Federal Regulations, Part 99	Regulations, Part 99.

enrollment in a California public school, college, or university?

- If the State may require students to provide Social Security numbers upon condition of enrollment, what disclosure-disclaimer information (if any) must the State provide to students and their parents?
- May biographic/scholastic information identified with Social Security numbers be transferred within the State's educational community (e.g., from school districts to the State Board of Education)?
- May Social Security numbers and accompanying biographic/scholastic data be released to agencies that conduct educational policy analysis with/without the student's or parent's consent?

2. *Voluntary Use of the Social Security Number as a Statewide Unique Identifier*

- May the State *request* a student (or his/her parents) to provide a Social Security number upon application for enrollment in a California public school, college, or university and assign a substitute student identifier in those instances where students/parents decline to provide a Social Security number (or previously assigned substitute student identifier)?
- If the State makes Social Security number reporting optional, does it have any disclosure/disclaimer responsibilities to the student and his/her parents?
- May biographic/scholastic information identified by Social Security number (or substitute identifier) be transferred within the State's educational community (e.g., from school districts to the State Board of Education)?
- May Social Security numbers (or substitute identifiers) and accompanying biographic/scholastic data be released to agencies that conduct educational policy analysis with or without the student's or parent's consent?

3. *Mandatory Use of California-Specific Student Identifier*

- May the State formally *assign* California-specific student identifiers and *require* students/parents to provide such

identifiers to a school/college/university when enrolling in a California public school, college, or university?

- If the State employs California-specific student identifiers, what disclosure/disclaimer information (if any) must the state provide to students and their parents?
- May biographic/scholastic information identified with California-specific student identifiers be transferred within the State's educational community (e.g., from school districts to the State Board of Education)?
- May California-specific student identifiers and accompanying biographic/scholastic data be released to agencies that conduct educational policy analysis with/without the student's or parent's consent?

4. *Mandatory Use of a California-Specific Student Identifier With an Accompanying (Voluntarily Submitted) Social Security Number*

   - May the State *assign* California-specific student identifiers and require students/parents to submit such identifiers to a school/college/university upon enrollment? May the State *request* students (or their parents) to provide a Social Security number to accompany the substitute identifier?
   - If the state employs California-specific student identifiers and records accompanying voluntarily submitted Social Security numbers, what disclosure/disclaimer information (if any) must the State provide to students and their parents?
   - May biographic/scholastic information identified with California-specific student identifiers be transferred within the State's educational community (e.g., from school districts to the State Board of Education) if the Social Security number is included in the transfer?
   - May California-specific student identifiers and Social Security numbers and accompanying biographic/scholastic data be released to agencies that conduct educational policy analysis with/without the student's or parent's consent?

Five investigative methods were employed to evaluate the viability of each alternative.

1. *Review of the Relevant Law by the Consultants:* The consultants reviewed the statutes and regulations identified in Display 3 to obtain an appreciation for the issues addressed in each and the implications of employing the various student identification numbering alternatives. This review led to the formulation of a series of questions that were subsequently posed to Task Force members, legal counsel representing the educational segments, and (during informal discussions) the State Attorney General's Office.

2. *Consideration by the Legal Round Table:* The consultants hosted a "legal round table" meeting with representatives of each segment's legal staff to review the implications of each alternative. This meeting, held at University Hall in January 1988, was attended by the following segmental counsel representatives:

Harlan E. Van Wye Deputy Attorney General California Department of Justice	Dennis Theodore O'Toole General Counsel California Student Aid Commission
Roger Wolfertz Legal Counsel California Department of Education	William G. Knight Assistant General Counsel The California State University
Melvin W. Beal, Attorney at Law The Regents of the University of California	Val Fadely Legal Affairs Assistant California Community Colleges

   The Legal Round Table was convened as a forum for a free exchange of ideas directed towards (a) the identification of State and federal statutes and regulations affecting the assignment and reporting of student identification/numbering systems, (b) consideration of the minimization of legal risk/exposure for the State, and (c) discussion of the need for, and applicability of, new federal and/or State legislation required to implement the system.

3. *Consultation with Administrators in Other States:* In the course of their visitations with administrators in other states, the consultants reviewed the conclusions these states had reached with regard to the applicability of federal and, to a limited extent, *their* state's laws as they impinged upon *their* statewide student identification/numbering systems. Consideration of the impact of such statutes was considered in the

event other states' laws could serve as a blueprint for equivalent California legislation.

4. *Consultation with Staff of the State Attorney General's Office:* Throughout the conduct of the study, the consultants and Commission staff consulted with Mr. Harlan E. Van Wye, the Deputy Attorney General assigned to the Commission to assist in this study, to evaluate student identification/numbering alternatives.

5. *Consultation with Segmental Counsel:* There are a number of statutes which do not necessarily apply to the University of California system unless the statutes have been adopted by the Regents of the University. As a result, counsel from the Office of the Attorney General was unable to review the identification/numbering alternatives for compliance with University policy. Melvin W. Beal, Attorney at Law for the Regents, reviewed the evaluation of alternatives and found nothing in conflict with existing University policy.

The Impact of Federal Legislation Upon the Assignment and Use of Student Identifiers

The Social Security number is of federal origin and comes under the jurisdiction of the federal government. The Federal Privacy Act of 1974 governs the use of the Social Security number, including its use as a unique identifier and as a means to identify records maintained on individuals. State statutes or regulations regarding Social Security numbers are of course subordinate to federal law. Under these laws, disclosure of a Social Security number is mandatory only when required by federal law or when included as part of a data system in existence prior to 1975.

The Privacy Act specifically addresses requirements for individuals to supply their Social Security numbers to be used as a personal identifier. This law contains a grandfathering clause which provides that institutions requiring students to disclose their Social Security number prior 1975 may continue to do so in perpetuity, however, institutions that failed to require the Social Security number prior to 1975 may not *mandate* it in the future. The statute does not, however, preclude *voluntary* requests for Social Security numbers nor does it compromise the state's ability to assign a permanent substitute identifier in those in-

stances where an individual may decline to provide his/her Social Security number for use as a personal identifier.

Display 4 summarizes the effect of the grandfather clause contained in the 1974 Privacy Act Social Security number collection.

Display 4 The Effect of the Grandfather Clause Contained in the Federal Privacy Act of 1974 on an Institution's Ability to Require Social Security Numbers Today

	Institutions That Collected the Social Security Number Prior to 1975	Institutions That *Did Not* Collect the Social Security Number Prior to 1975
May *require* the Social Security number now	Yes	No
May *request* the Social Security number now	Yes	Yes

Outcomes of the Investigative Phase

1. *Mandatory Use of the Social Security Number as a Statewide Unique Identifier*

The applicability of the Social Security number as the State's future unique student identifier lies in the Federal Privacy Act of 1974. Under the Privacy Act, institutions *requiring* the Social Security number prior to 1975 may continue to do so in perpetuity.

Generally speaking, California's K-12 system had little reason, justification, or motivation to require Social Security numbers from students prior to 1975 and federal tax law has only recently required children over the age of five who are claimed as dependents on a federal tax return to have Social Security numbers. In consideration of this historical precedent, the K-12 system cannot begin *requiring* the Social Security number as a student identifier now.

Social security numbers were collected by one or more post-secondary education institutions within each segment prior to 1975. The practice was, however, implemented on an institutional rather than segmental basis. Even though at least one of each segment's campuses *required* Social Security numbers as student identifiers prior to 1975, the ability to require Social Se-

curity numbers is not transferable to other campuses within a segment: the right to require Social Security numbers is institutionally based. As such, no postsecondary education segment may now *require* use of the Social Security number throughout all of its campuses.

There are a number of other states which have implemented or are planning to implement similar statewide student information systems that rely upon the Social Security number as their principal means of student identification. If student Social Security numbers were to be mandated, California could join with these states to request the federal Privacy Act of 1974 be amended to permit the collection of Social Security numbers from future students. To facilitate such action, states lobbying for changes to the 1974 Privacy Act might ask that Social Security numbers be collected but be restricted to policy analysis purposes only.

Were federal law enacted permitting Social Security numbers to be required of all students (even if limited to policy analysis purposes) it would also require the subsequent adoption of implementing administrative code changes within K-12, the State University and Community College systems, and equivalent Regental regulations within the University of California system.

2. *Voluntary Use of the Social Security Number as a Statewide Unique Identifier*

The consultants did not encounter any existing legal impediments at either the state or federal level precluding the voluntary solicitation, collection, and use of Social Security numbers by educational agencies. In fact, this practice has been employed by a number of postsecondary educational institutions both within and outside California with a high degree of success (voluntary reporting typically ranged from 75-95%). Should this practice evolve as the most expeditious means of gathering student identifiers within California it would need to be accompanied by a parallel program permitting students to be involuntarily assigned substitute identifiers in those instances where the student (or his/her parents) declined to voluntarily provide either (a) the student's Social Security number or (b) a previously assigned substitute number .

This alternative, if implemented, would require the passage of new State legislation to facilitate the assignment and recall of

substitute identifiers and would -- following passage -- require the adoption of implementing administrative code within the K-12, State University, and Community College systems, and equivalent Regental regulations within the University of California system.

No changes in federal law would be required under this alternative, though institutions would be required to state clearly that providing the Social Security number would be optional and that no adverse consequences would result from refusal to provide it.

3. *Mandatory Use of a California-Specific Student Identifier*

Under this alternative, students would be assigned a California-Specific unique identifier upon the student's initial contact with the State's educational system. Students would be required to surrender this identification number every time they subsequently enrolled. In those instances where a student enrolled in a California educational institution, left the State and subsequently returned to enroll in an educational institution, the student (or his/her parents) would be expected to provide the institution with the original identifier and to report that identifier in all subsequent contacts with California educational institutions.

Implementation of a mandatory student identification/numbering system using California-specific identifiers would require enabling State legislation and attendant regulatory changes within the various educational segments. No changes in federal law would be required under this alternative.

4. *Mandatory Use of a California-Specific Student Identifier With an Accompanying (Voluntarily Submitted) Social Security Number*

This alternative received relatively little consideration as it embodied virtually all of the expenses and legal barriers of Alternatives 2 and 3 while providing little in the way of improving the quality or timeliness of the information to be gathered. All of the legal implications of Alternative 2 and 3 -- enabling State legislation and attendant regulatory changes within the various educational segments would be required under this alternative although no changes in federal law would be required.

Other Legal Issues Related to the Assignment and Use of Unique Student Identifiers

Disclosures/Disclaimers

Regardless of the nature of the identifier used, whether Social Security number or a California specific identifier, what disclosure/disclaimer information (if any) must the State provide to students and their parents? Generally speaking, this issue is accommodated (under all four alternatives) within existing State law. It is typically addressed by providing a written explanation to students/parents at the time a student enrolls explaining the State's policy, indicating the use(s) to which the identifier (and other information) may be put, and providing an avenue for redress in the event the student/parent wishes to oppose its use.

Transport of Educational Information Within the State

May biographic/scholastic information identified with a unique identifier -- whether Social Security number or a California-specific identifier -- be transferred within the State's educational community (e.g., from school districts to the State Board of Education)? This issue is accommodated (under all four alternatives) under existing State statutes. Under these statutes, educational information used for research purposes may be transferred between educational agencies as long as it is being employed for policy analysis purposes (*California Education Code* Section 49068).

Release of Student Identifiers

May unique identifiers -- whether Social Security number or a California specific identifier -- and accompanying biographic/scholastic data be released to agencies that conduct educational policy analysis with/without the student's or parent's consent? Applicable statutes clearly state that as long as a legitimate reason exists for the research and reasonable safeguards are taken, it is permissible. All educational segments are governed by statutes that contain identical wording, which is:

> Organizations conducting research studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, or administering predictive tests,

The Wyndgate Group, Ltd.

administering student aid programs, and improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students or their parents by persons other than representatives of such organizations and such information will be destroyed when no longer needed for the purpose for which it is conducted.

The legal implications of the various alternatives to assigning and reporting student identifiers are summarized in Display 5.

Even though the statutes cited in this chapter establish clear guidelines regarding student information collection and use under various contingencies, the complexity of these laws and misunderstandings regarding their applicability under various scenarios may justify the adoption of new legislation clarifying the State's intentions vis-a-vis student privacy even though such legislation may not be required.

Trade-Offs Between the Social Security Number and a California-Specific Student Identification/Numbering System

Use of the Social Security number as a student identifier offers a number of advantages over the use of a California-specific identifier. Advantages include:

- Virtually every Californian over the age of five has, or will soon have, a Social Security number.
- The Social Security number is relatively easy to remember.
- The Social Security number is part of an established numbering system.
- Administrative costs are lower if the Social Security number is employed as the Comprehensive Student Information System identifier because the State would not have to devise and maintain its own student identification/numbering system.
- Accessing student records created outside California (for the purpose of supporting ongoing policy analysis) would be somewhat easier and less expensive because many educational agencies (e.g., College Board) and institutions maintain student Social Security numbers even if not employed as a unique identifier.

Display 5 A Summary of the Legal Implications of Various Student Identification/Numbering Systems

Alternative or Issue	Federal Legislation Required	State Legislation Required	Segmental Administrative Code Changes Required
Mandatory Use of the Social Security Number as a Statewide Unique Identifier	Yes	Yes	Yes
Voluntary Use of the Social Security Number as a Statewide Unique Identifier	No	No[1]	Yes
Mandatory Use of California-Specific Student Identifier	No	Yes	Yes
Mandatory Use of a California-Specific Student Identifier With an Accompanying (Voluntarily Submitted) Social Security Number	No	Yes	Yes
Disclosures/Disclaimers	No	No	No
Transport of Educational Information Within the State	No	No	No
Release of Student Identifiers to Researchers	No	No	No

1. While existing State and federal law addresses the use of voluntarily supplied Social Security numbers, new legislation clarifying the State's intentions to gather such information would establish a policy framework for information providers and users while facilitating the development and adoption of administrative code changes within the segments.

The disadvantages of adopting the Social Security number as the official Compehensive Student Information System identifier include:

- Passage of federal legislation is needed before the Social Security number could be required as a condition of obtaining a State-subsidized education.
- If the Social Security number cannot be universally required (e.g., it must be requested on a voluntary basis), compliance with requests for voluntary disclosure will be less than 100 percent. The extent of "voluntary compliance," however, is generally high within and outside California. The State University requests its students to provide Social Security numbers voluntarily on all 19 campuses. In Fall 1981, the State University experienced a 92.9% compliance with this request,

with noncompliance figures ranging from 4.3% to 11.2% on a per campus basis.

- Certain individuals and population groups may be reluctant to participate in the State's public education system if the Social Security number is precursor to enrollment. Undocumented aliens, parents who have unlawfully moved their children to California, and others who may fear being identified through the Social Security number may keep their children out of school.
- Privacy statutes render the Social Security number difficult to verify. Even though a student may present a seemingly valid Social Security number at time of admission, there is little an institution can do to verify the integrity of the number.

CHAPTER 4 A CALIFORNIA EDUCATIONAL CLEARINGHOUSE: INFORMATION COLLECTION AND DISSEMINATION POLICIES AND PRACTICES

Introduction

Previous chapters have described various student information systems operating within and outside California and the legal issues attendant to the collection and use of student identifiers for policy analysis purposes. This chapter is directed towards California's policy analysis needs and discusses how a statewide student information system -- supporting a State-level clearinghouse -- could be implemented.

This chapter also identifies various kinds of information that would be gathered for each student and their frequency, and points of collection. It further notes the means the State would employ to gather information describing each student, transmit such information among and through the various educational systems, and assemble the information within a single organizational entity -- the Educational Clearinghouse.

The chapter describes the safeguards that would be effected to isolate information requesters from actual student identifiers and indicates the technical and policy review mechanisms that would be established to screen prospective information users to ensure the viability, applicability, and legality of their information requests.

Finally, the chapter concludes with a discussion of the Clearinghouse's role as an information broker and indicates the ongoing responsibilities information providers will assume under the Clearinghouse concept.

The Role of Unique Student Identifiers in the Operation of the Clearinghouse

The Comprehensive Student Information System model is based

The Wyndgate Group, Ltd

on the precept that every student who enrolls in a California educational institution for the first time -- whether at the kindergarten or postgraduate level -- will be requested or required to provide a unique identifier that will remain with the student throughout his/her educational career. Student identifiers (and selected "locator" information) will be reported to the Educational Clearinghouse in the first term in which a student enrolls and subsequently when a student:

- Enrolls in an institution;
- Takes a standardized test (e.g., SAT, ACT);
- Applies to and is accepted to enroll in a postsecondary educational institution (*regardless of whether or not the student subsequently enrolls*);
- Receives a diploma, certificate, or degree;
- Applies for, or receives a student aid grant, loan, etc.;

In those instances where a student enrolls in a California educational institution (and is assigned an identifier), leaves the State and subsequently returns to enroll in an educational institution, the student (or his/her parents) would be requested/required to provide the institution with the original identifier and to report that identifier in all subsequent contacts with California educational institutions.

Collecting "Core Locator" Information When a Student Initially Enrolls

A number of data elements (termed Core Locator elements) will be collected from a student when he/she makes initial contact with an educational institution. The Core Locator elements are:

- Student identifier
- Student name
- Date of birth
- Gender
- Institution
- Ethnicity

These six elements will be collected only once, filed with the Clearinghouse, and used thereafter to locate lost or forgotten identifiers during subsequent enrollments.

For example, consider a person who initially provided a Social Security number (or was assigned a substitute identifier) in kindergarten, left the California educational system after graduat-

ing from high school at age 18, and subsequently enrolled for a community college course many years later at age 45.

If the student could not recall his/her original identifier when enrolling for the community college course but could provide the college with his/her date of birth, name, gender, institution attended, and/or year of attendance, the College could contact the Clearinghouse, provide this information, and request the Clearinghouse to search for the forgotten identifier. In such instances, Core Locator elements would be utilized to narrow down possible candidates until the forgotten identifier had been relocated.

Statewide Information Collection as It Relates to the Educational Clearinghouse

Information collection to support the Clearinghouse begins at the school/college/agency level and percolates upwards through district offices to systemwide offices and finally to the Clearinghouse. Generally speaking, the *quantity* of information passed on from schools/colleges, to districts, and finally to statewide offices declines in accordance with its applicability at each level.

For example, a college or university may maintain as many as 200 or 300 data elements describing each enrolled student. These elements may be used to assist students in obtaining campus housing, parking, or meal service. Similarly, they may be employed to provide information describing a student's class preferences or meeting dates and times, employment condition, or fraternity/sorority affiliations.

Typically, only a small fraction of the student information required to support an institution's operation has relevance at the district, systemwide, or State level. Using the previous example, while information describing student enrollment choices may be useful at the district or systemwide level, fraternity/sorority affiliations typically are not and would therefore not be passed on from an institution to a district or systemwide office.

The Clearinghouse is intended to serve as the State's highest level repository for information documenting significant events that transpire throughout a student's academic career. While this obligation might at first glance imply a need for the Clearinghouse to acquire and subsequently maintain massive quantities of student-specific information, the need to actually *possess*

such information (rather than know where to find it) is virtually nonexistent.

Whereas an individual statewide office may need to access 10-50 elements per student to facilitate systemwide administration, the Clearinghouse requires only a small subset of these elements to fulfill its charter. To be effective, the Clearinghouse need only maintain that information necessary to (a) locate and reassign forgotten/misplaced student identifiers (discussed in the previous section), and (b) identify source(s) of student information that can be retrieved from institutional/agency data bases to assist policy analysis activities. In sum, the Clearinghouse's principal charge can be fulfilled entirely if the Clearinghouse is provided with sufficient *locator* information to permit it to know where other and more exhaustive student information may be found.

These two requirements can be readily met using very limited quantities of locator information organized in seven basic categories:

1. *Core Locator Information*

Core information would be collected when a student makes initial contact with a California school/college/university. Its principal value to the information system lies in its ability to facilitate the retrieval of lost, missing, or forgotten student identifiers.

2. *Progression Information*

Progression information would be reported for each year and term in which a student enrolled in a California educational institution. It would be used within the Clearinghouse to record the institution(s) in which a student enrolled, the year/term(s) in which he/she enrolled, and the student's grade level at time of enrollment.

Typically, a student beginning his/her academic experience in a California educational institution at the kindergarten level and remaining within the State throughout his/her K-12 educational career would accumulate approximately 26 progression entries within the Clearinghouse prior to high school graduation (one progression entry for each term for 13 years). Students would accumulate more than the minimum 26 Clearinghouse entries if

they required more than 13 years to graduate from high school (beginning with kindergarten) or if they enrolled in a postsecondary educational institution following high school. Students leaving the State or discontinuing their education prior to high school graduation would likely generate fewer than 26 progression entries in the Clearinghouse.

3. *Standardized Test Information*

Test score information would be used to record student test score results for standardized tests (e.g., SAT, GRE). Each Clearinghouse entry would record a student's identifier, and the date(s) and type(s) of examinations the student had completed.

4. *College Admission Information*

Admission information would be recorded in the Clearinghouse each time an applicant was accepted for admission to a California college or university. Each Clearinghouse entry would record a student's identifier, the college/university to which a student was accepted, and the year/term for which the student was admitted. Note that objective information is gathered for all applicants whether or not they subsequently enrolled.

5. *Completion Information*

Completion information would be recorded within the Clearinghouse each time a student received a diploma, certificate, or degree. Each Clearinghouse entry would record a student's identifier, the degree(s) and diploma(s) awarded, the type of diploma, the institution making the award, and the year/term during which the award was made.

6. *Financial Aid Application and Award Information*

Financial Aid applicant and award information would be recorded within the Clearinghouse each time a student applied for, or accepted a student aid grant, loan, etc. Each entry would indicate a student's identifier, the institution in which the student was enrolled (or intended to enroll), the type of student financial aid awards made to the student, and the applicable year/term.

7. *Miscellaneous Information*

This open-ended category is reserved for future expansion. It might include Clearinghouse entries recording important student-related activities/achievements such as receipt of a teaching credential, passage of the California Bar Examination, receipt of a nursing certificate, etc.

Display 6 on page 49 illustrates the system's core locator information, reporting frequencies, reporting points, information collected, and reporting agents organized by locator element. Display 7 on page 50 shows this same information organized by collection point/time.

Some or all of the information identified in these seven reporting categories is already gathered by California institutions and agencies via their routinized management-based reporting systems. In some instances, selected excerpts of these data are forwarded to district, county, and systemwide offices. However, in only a few instances are extracts of systemwide data bases subsequently forwarded to, and maintained by statewide agencies for the purpose of conducting policy analysis.

With the exception of the locator and miscellaneous categories described previously, each entry in the Clearinghouse's information base would require a much expanded information counterpart to be maintained within segmental and participating agency information bases. For example, each progression entry maintained in the Clearinghouse consists of only four elements; student identifier, year/term, institution, and grade level. This information would be employed by the Clearinghouse to identify individual students who were to be subjects of future policy analysis/educational research activities and to indicate where (within the segments or the State Department of Education) more extensive information could be found. Once a list of students had been identified for consideration in a study, more expanded information would need to be obtained from the contributing segment/agency in order to fulfill the project's information needs.

In sum, two conditions must be satisfied for the Clearinghouse to serve as a viable policy analysis/educational research entity:

- Each segment must maintain more exhaustive student information than the few elements maintained by the Clearinghouse.

Display 6 Comprehensive Student Information System Locator Information, Reporting Frequencies, Reporting Points, Information Collected, and Reporting Agents Organized by Element

Locator Information	Typical Reporting Frequency	Information Collection Point	Information Reported	Reporting Agent
1. Core Information	Once	Reported when a student initially enters a K-12 school, college, or university	Student identifier Name Date of birth Gender Ethnicity	K-12 school Postsecondary education institution
2. Progression Information	Each term	Reported when a student enrolls in a school or college	Student identifier School/institutional identifier Grade level Year/term	K-12 school Postsecondary education institution
3. Test Score Information	Periodically throughout a student's academic career	Reported when a student completes a standardized test	Student identifier School/institutional identifier Grade level Test type Year/term	Educational Testing Service, American College Testing
4. College Admission Information	1-5 times throughout a student's academic career	Reported when a student is accepted to a postsecondary educational institution	Student identifier School/institutional identifier Objective Year/term	Postsecondary education institution
5. Completion Information	1-5 times throughout a student's academic career	Reported when a student receives a diploma, certificate, degree, credential, etc.	Student identifier School/institutional identifier Degree, certificate, or diploma type/level Year/term	K-12 school Postsecondary educational institution
6. Financial Aid Information	1-20 times throughout a student's academic career	Reported when a student is determined eligible for, or receives a student aid grant, loan, etc.	Student identifier School/institutional identifier Grant/loan type Year/term	Student Aid Commission

Display 7 Comprehensive Student Information System Locator Information, Reporting Points, Information Collected, and Reporting Agents Organized by Collection Point/Time

Typical Information Collection Points/Times (each student)	Participating Schools, Institutions, and Agencies: K-12 Schools		Postsecondary Educational Institutions			State Agencies	Information Reported	Reporting Agent
	Public	Independent	Public	Independent (collegiate)	Independent (vocational)			
1. Upon initial contact with a school, college, or university	Yes	?	Yes	?	?	No	Student identifier Name Date of birth Gender Ethnicity	K-12 school Postsecondary education institution
2. Upon enrollment in an educational institution	Yes	?	Yes	?	?	No	Student identifier School/institutional identifier Grade level Year/term	K-12 school Postsecondary education institution
3. Upon completion of a standardized test	No	?	Yes	?	?	No	Student identifier School/institutional identifier Grade level Test type Year/term	Educational Testing Service American College Testing
4. Upon award of a diploma, certificate, degree, or credential	Yes	?	Yes	?	?	No	Student identifier School/institutional identifier Degree, certificate, or diploma type/level	K-12 school Postsecondary education institution
5. Upon acceptance to a postsecondary educational institution	No	?	Yes	?	?	No	Student identifier School/institutional identifier Objective Year/term	Postsecondary education institution
6. Upon award of a student aid grant, loan, etc.	No	?	No	?	?	Yes	Student Aid School/institutional identifier Grant/loan type	Student Aid Commission

- The Clearinghouse must be able to obtain ready access to these expanded information bases for the purpose of providing one or more student data elements to policy analysts.

Information Gathering Procedures and the Flow of Information from Institutions to the Clearinghouse

Display 8 on page 52 illustrates how the Comprehensive Student Information system would operate to gather the seven categories of information described previously.

Responsibility for basic data collection and editing would rest with the institutions. Data migration would proceed along established lines from institutions to district/county offices and on to systemwide administrative units. At every step along this path, intermediaries would preserve those student-specific elements that had been identified as necessary to support a State-level educational data base.

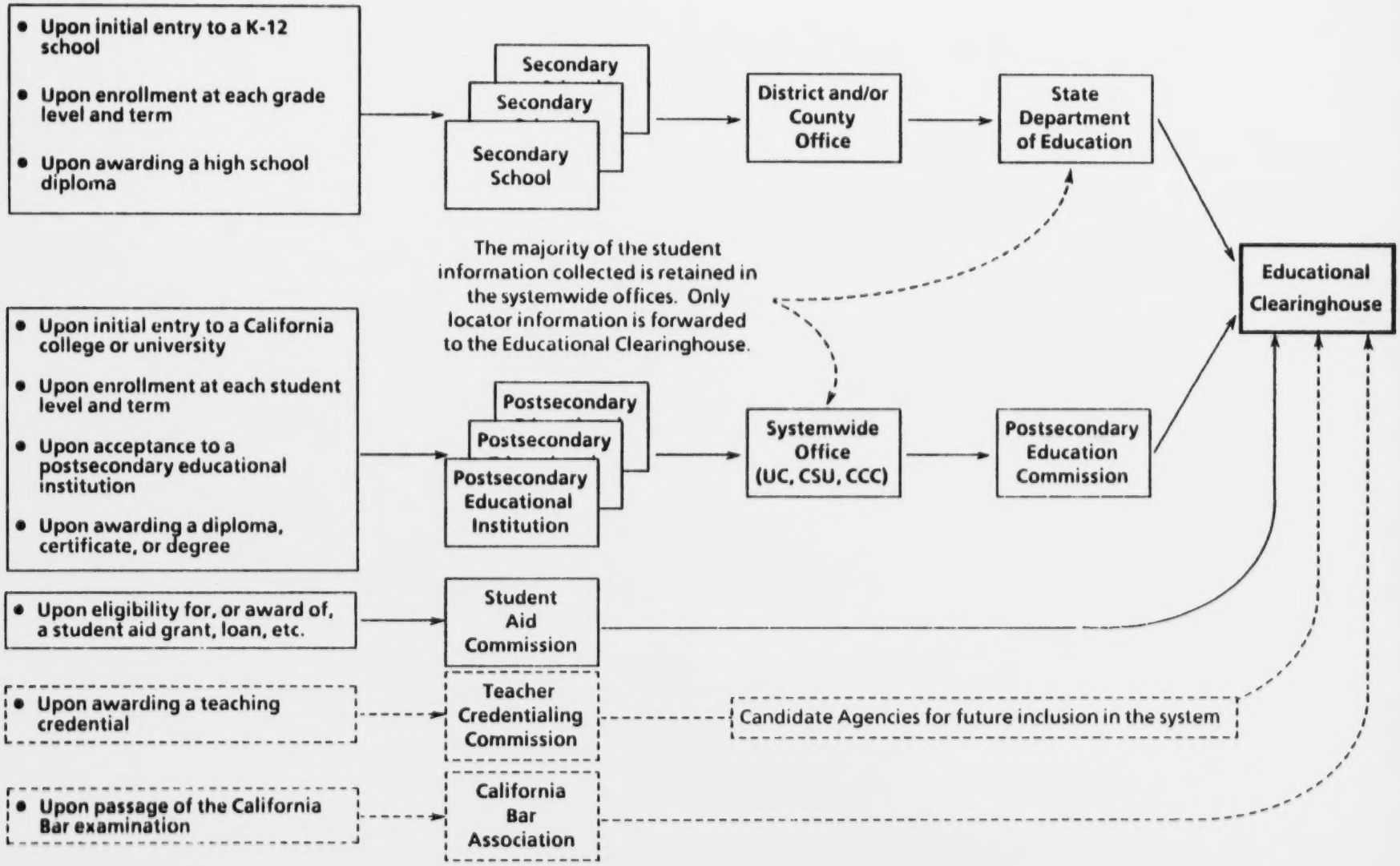
Information required to support State-level policy analysis would be extracted from the information forwarded to the systemwide offices by the institutions and maintained in separate and discrete information bases reserved for system usage. Where required, individual data elements coded by the institutions using non-system standards would be translated from locally developed coding structures into system-compatible equivalents.

These data bases of the Comprehensive Student Information System would be either:

- Maintained by the systemwide offices in perpetuity and made available to the Clearinghouse as needed to fulfill its information gathering and reporting responsibilities, or
- Filed with the Clearinghouse after the data had been thoroughly edited and reviewed by the segments

At its February 10, 1988, meeting, the Task Force developed a series of student demographic and academic data elements that it felt formed a representative sample that should be gathered by the institutions and maintained in the system's data base (either directly in the Clearinghouse or within the segmental offices). An inventory of these elements appears in Appendix C. Note that the elements identified by the Task Force should be

Display 8 Information Flow Within the Comprehensive Student Information System


• Upon initial entry to a K-12 school
• Upon enrollment at each grade level and term
• Upon awarding a high school diploma
Secondary
Secondary
Secondary School
District and/or County Office
State Department of Education
The majority of the student information collected is retained in the systemwide offices. Only locator information is forwarded to the Educational Clearinghouse.
Educational Clearinghouse
• Upon initial entry to a California college or university
• Upon enrollment at each student level and term
• Upon acceptance to a postsecondary educational institution
• Upon awarding a diploma, certificate, or degree
Postsecondary
Postsecondary
Postsecondary Educational Institution
Systemwide Office (UC, CSU, CCC)
Postsecondary Education Commission
• Upon eligibility for, or award of, a student aid grant, loan, etc.
Student Aid Commission
• Upon awarding a teaching credential
Teacher Credentialing Commission
Candidate Agencies for future inclusion in the system
• Upon passage of the California Bar examination
California Bar Association

The Wyndgate Group, Ltd.

considered as best estimates of those that will be required to support future policy analysis and are intended to be illustrative rather than prescriptive.

This differentiation of function whereby the system's data bases may be maintained at the systemwide level and locator files are supported within the Clearinghouse provides three important benefits to the State:

1. It permits each systemwide office to maintain its own in-house quality control and confidentiality procedures.
2. It minimizes the amount of information that is duplicated within, and maintained by the Clearinghouse.
3. It requires the system's data bases to be made available to the Clearinghouse only on an "as needed," rather than on a year by year or term by term basis.

Statewide Information Dissemination as It Relates to the Clearinghouse

The Clearinghouse's Role in Processing Information Requests

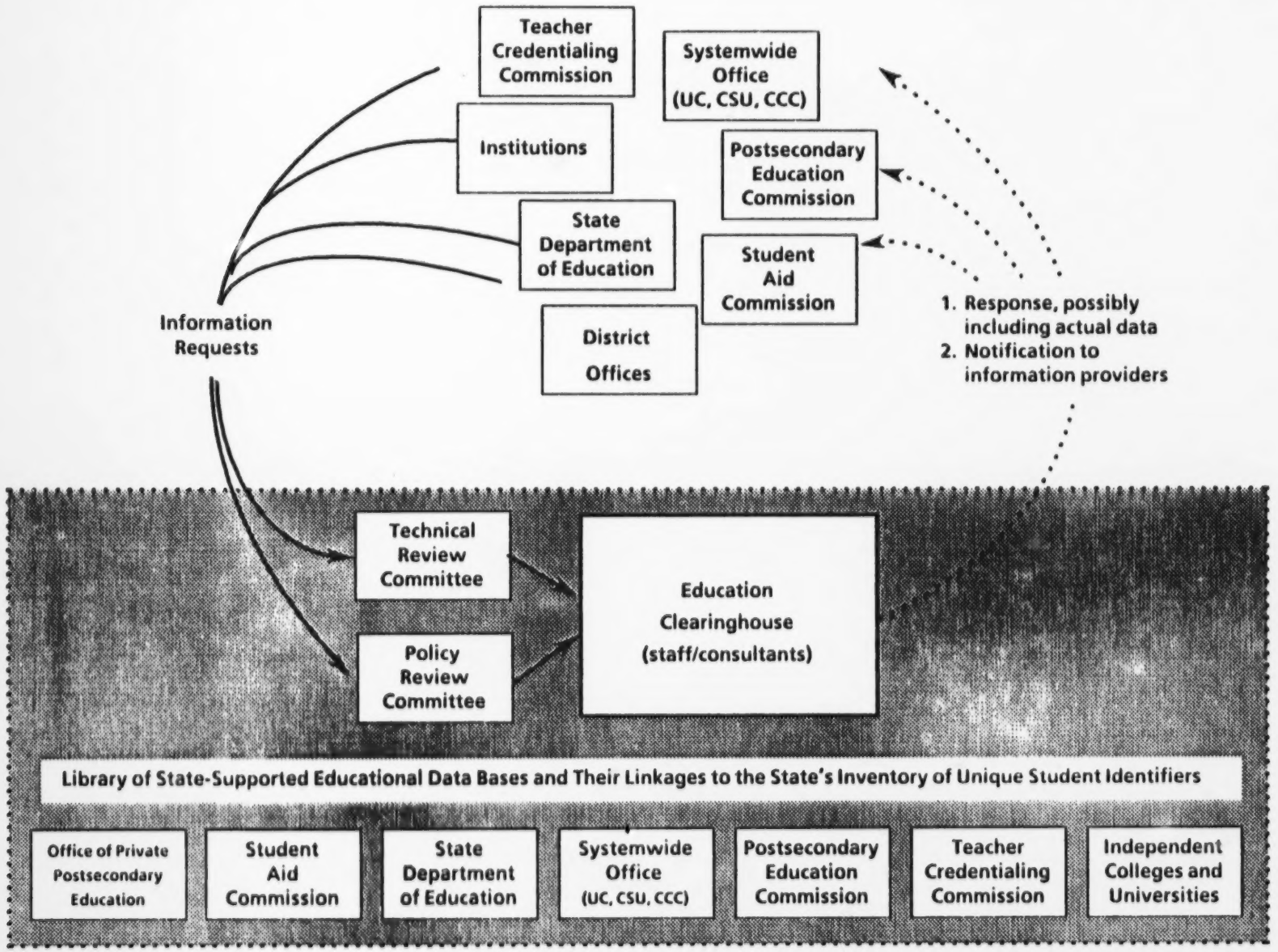
A diagram illustrating the operation of the Clearinghouse appears in Display 9 on page 54. Typical information requesters appear at the top of this illustration. In operation, institutions, segmental offices, and educational agencies would submit requests for information directly to the Clearinghouse. Requests would be simultaneously reviewed by two standing committees, each composed of representatives drawn from the system's information providers (e.g., the State Department of Education, the postsecondary education segments, Student Aid Commission, and Postsecondary Education Commission).

A Technical Review Committee would evaluate each information request in terms of the:

- Clearinghouse's ability to respond to the request using existing information sources;
- Availability of the requested elements (e.g., some requests may not be able to be fulfilled because the information either does not exist or does not exist over the time period requested);

The Aviagate Group, Ltd.

Display 9 Information Flow Between Information Users, Information Providers, and the Educational Clearinghouse


Teacher Credentialing Commission
Systemwide Office (UC, CSU, CCC)
Institutions
Postsecondary Education Commission
State Department of Education
Student Aid Commission
District Offices
Information Requests
1. Response, possibly including actual data
2. Notification to information providers
Technical Review Committee
Policy Review Committee
Education Clearinghouse (staff/consultants)
Library of State-Supported Educational Data Bases and Their Linkages to the State's Inventory of Unique Student Identifiers
Office of Private Postsecondary Education
Student Aid Commission
State Department of Education
Systemwide Office (UC, CSU, CCC)
Postsecondary Education Commission
Teacher Credentialing Commission
Independent Colleges and Universities

The Wyndgate Group, Ltd

- Clearinghouse's technical ability to extract the requested information (e.g., some requests may call for permutations and combinations of information that cannot be extracted from the Clearinghouse's information inventory);
- Amount of computing resources required to develop the data to respond to the request;
- Cost of providing the requested information; and
- Time required to provide the requested information.

The Policy Review Committee would evaluate information requests in terms of the:

- Applicability of the information to legitimate policy analysis;
- Availability of published studies containing similar or complementary information;
- Applicability of the requested information in terms of the purpose of the intended study;
- Existence of ongoing studies employing similar information or addressing similar topics; and
- Applicability of the information request in terms of State/national law, regulations, etc.

Information requesters would be advised upon conclusion of the technical and policy review process of the Clearinghouse's ability to fulfill the information request, the time required to do so, and the funding -- if any -- needed to support information assembly, extraction, and manipulation.

Educational institutions and public service research and policy analysis organizations who obtain the Clearinghouse's approval to access the system's information would have the alternative of either (a) obtaining a data base assembled by the Clearinghouse containing student information with pseudo student identifiers in lieu of actual identifiers, or (b) having the Clearinghouse perform the requested analysis. In the latter instance, the Clearinghouse would quote the requesting organization a fee for the analytic services involved and undertake the requested work following agreement on financial terms and conditions.

The Clearinghouse's Role as Information Broker

The Wyndgate Group, Ltd

Following approval of an information request, Clearinghouse staff would begin coordinating the assembly of the requested information and undertaking attendant analytic work. A typical sequence of events that the Clearinghouse staff might follow in response to an information request follows:

- Clearinghouse staff would interrogate its internal locator files to determine which student records in the system's data base met the criteria called for by the study.
- After identifying those student records to be included in the Clearinghouse's response, Clearinghouse staff would note the institutions these students had attended and the years/terms in which they had been in residence.
- Following identification of a discrete student population and their "location," the Clearinghouse staff would contact the appropriate systemwide offices holding the necessary records, provide them with a machine-readable list of students (using actual student identifiers), institutions, years/terms, and request the systemwide office to extract the requested data elements from their respective system data bases.
- The systemwide offices would process the Clearinghouse's request, prepare a machine-readable file containing the required information, and return it to the Clearinghouse.
- The Clearinghouse staff would assemble the information provided by the systemwide offices into a single data base and, in the process, *replace the original unique identifiers with substitute identifiers.*

In those instances where an information request had been received from an educational institution/agency wishing to perform its own analysis, the Clearinghouse would forward the data base directly to the requesting organization.

In those instances where the Clearinghouse had been requested to undertake the policy analysis internally, Clearinghouse staff would initiate the procedures necessary to produce the desired results and forward the outcome of its analysis to the requesting organization.

An Example of a Response
to a Typical Clearinghouse Information Request

An institution might submit a request to the Clearinghouse to obtain information documenting enrollment patterns of students who had left (via transfer or drop-out) their institution during a particular period (e.g., 1980-82). The institution would provide the Clearinghouse with the identifiers of the students to be tracked and request the Clearinghouse to assemble information documenting the institutions in which these students had subsequently enrolled.

The Clearinghouse's first action would be to submit the request to, and obtain approval from, its Technical and Policy Committees and resolve funding issues with the requesting campus. Following such approval, Clearinghouse staff would match the student identifiers provided by the requesting campus against the Clearinghouse's locator files. In those instances where a student identifier provided by the campus matched one or more records in the Clearinghouse's files, the Clearinghouse would create machine-readable files containing "matched student identifiers" for the University, State University, and Community College systems.

Segment-specific files containing student identifiers, institution codes, and year/term attendance information would subsequently be forwarded to each segment's systemwide office. The systemwide offices would, upon receipt of the Clearinghouse's transmittal, match the Clearinghouse's records with its internally maintained Comprehensive Student Information System data bases, extract the elements requested by the Clearinghouse, assemble a machine-readable file containing the required data, and return it to the Clearinghouse.

Upon receipt of each segment's Comprehensive Student Information System information, the Clearinghouse staff would assemble the segmental responses into a single data file in a standard format, *change the original student identifiers to surrogates,* and forward the data base to the requesting campus.

The Clearinghouse's Role as a Buffer When Dealing with Unique Student Identification Numbers

One of the most important roles the Clearinghouse could play in responding to information requests would be to provide substitute unique student identifiers that may be used for longitudinal tracking purposes.

For example, a requesting agency might ask the Clearinghouse to select a 5% random sample of tenth grade students enrolled in 1990, identify each student with a unique identifier, and provide the agency with annual updates on a student-by-student basis indicating the:

- Institution(s) in which each student was enrolled;
- Postsecondary educational institutions to which each student had been accepted for admission (if any); and
- Degrees, diplomas, certificates, etc. each student had received (if any).

The Clearinghouse's response to such a request would be accommodated using the procedures described in the previous section, however, actual student identifiers would be translated into substitute identifiers prior to releasing the data to the requesting institution/segmental office/agency. An important point to appreciate is that, even though each student record provided to the external party would contain a substitute identifier, every identifier would remain identical in each year in which a student's record was reported. This ability to translate actual to substitute identifiers and to maintain their consistency over extended periods provides two significant benefits to Clearinghouse users:

- It permits the Clearinghouse to retain actual identifiers within the State system and thereby avoid information confidentiality liabilities while ensuring the confidentiality of the information in its trust.
- It provides researchers with the ability to obtain longitudinal samples of student information with consistent student-by-student year-to-year tracking ability.

CHAPTER 5 FINDINGS AND RECOMMENDATIONS

Findings

California

1. The information requirements embodied in AB 880 cannot be accommodated within existing educational information systems.

Existing student information systems were initially developed to address local, regional, or systemwide management needs and are designed to provide management-based rather than policy analysis-based information. These systems generally lack the information needed to support educational research and policy analysis because most information is oriented toward institutionally-based student services or segmental fiscal planning. These systems also suffer from lack of data comparability among and between institutions and segments and do not support unique student identifiers permitting longitudinal studies of student behavior.

2. The degree of student record automation varies considerably within and among California's public segments.

K-12: While a few K-12 districts and schools are developing and presently maintaining automated student record systems and others have made a commitment to develop such systems, many K-12 schools and districts have not yet made a commitment to develop automated student information systems.

The majority of California's K-12 schools do not have access to sophisticated computer-based student information systems.

Note: All references to *education* within this chapter refer to publicly-supported K-12 and postsecondary education.

The Wyndgate Group, Ltd

For the most part, individual districts and schools employ a combination of manual and machine-assisted record keeping systems to record student information. These systems, while useful for district and school reporting purposes are generally inadequate in terms of the information needs of a comprehensive student information system.

Postsecondary Education: Virtually all of California's publicly-supported colleges and universities either currently maintain, or are in the process or acquiring large scale computer-based student information systems.

- The University of California and The California State University segmental student information systems have been in existence for a number of years and periodically undergo evolutionary modifications to maintain their currency with regard to emerging information needs. Both segments provide considerable latitude to their campuses vis-a-vis local implementation alternatives, however, both require their institutions to gather and report a comprehensive array of uniformly coded student information to the central offices.
- The California Community College system has also maintained a statewide student information system for many years, however, the sheer size and organizational complexity of the system coupled with historic limitations on computing resources within the districts and the Chancellor's Office have, until recently, precluded the Community College system from developing as comprehensive a system as the other two public segments. Recent Chancellor's Office action to improve its systemwide student reporting capabilities is expected to provide the system with an information gathering and reporting capability that will be more comparable with the other two public segments, though funding for the new system was deleted from the 1988-89 budget.

3. Information comparability varies among and within the California public segments.

The consistency and comparability of student information is typically very low within California's K-12 system. Both the numbers and kinds of information gathered varies widely

among districts, as do the definitions employed in the information collection process. The State Department's annual CBEDS survey represents one of the few areas in which the K-12 segment maintains consistently reported and defined information across district boundaries, though this system does not support individual student records or student identifiers. For the most part, each of the public postsecondary education segments maintain a moderate to high degree of uniformity in their student data bases. In a limited number of instances, the postsecondary educational segments maintain uniform coding conventions for selected data elements across segmental boundaries. Neither the K-12 or postsecondary education segments are capable of readily linking student records to facilitate longitudinal studies.

4. A number of the student data elements called for under the Comprehensive Student Information System are currently being collected by one or more of the public postsecondary segments.

The postsecondary education segments support extensive annual and term-by-term student information collection and reporting programs as part of their ongoing administrative activities. Even though these information collection and reporting methodologies differ by segment, a number of the elements identified in Appendix D for use within the Comprehensive Student Information System are being collected now. This inventory of data elements provides a rich existing source of student information that, following careful analysis to ensure comparability, could be employed to pilot the operation of the system for the purpose of estimating the trade-offs between system costs and policy analysis benefits. While some of the student data elements presently collected by the segments would undoubtedly require State-level review and standardization with regard to coding conventions and reporting frequencies, the basic framework for the data element collection program is already operational in one or more of the segments and should be considered as a starting point for future system development discussions.

5. Implementation and ongoing operational costs of a Comprehensive Student Information System

will likely be lower within the postsecondary educational segments than within the K-12 system.

Per capita institutional implementation and operational costs for the system will be a function of the (a) level of existing student records automation, (b) numbers of new student records to be constructed each year, (c) numbers of existing student records to be maintained, (d) sizes of institutions to be supported, and (e) organizational structures developed to deal with system implementation. When considered in this context, California's K-12 system will likely experience higher total *and* per capita institutional implementation and ongoing operational costs because of the system's poorer position with regard to installed automated student records systems, larger overall student population, and smaller average institutional size (with correspondingly reduced scale economies).

The relatively smaller size of the public postsecondary education segments when compared to the K-12 system, the pre-existence of large scale automated postsecondary educational student information systems and the limited, though, important precedent within the postsecondary educational community of maintaining limited State-level comparability among selected student data elements, suggest that the cost of implementing the project will be lower within the public postsecondary segments.

6. **Additional legal research is needed to more clearly establish the legal viability of the Comprehensive Student Information System concept and ensure that both the spirit and intent of applicable privacy laws are preserved.**

   The legal interpretations and assumptions used throughout this report to support the Comprehensive Student Information System program in terms of existing federal and State information privacy laws are based on informal advice provided by various segmental and State-level legal counsel. Additional legal research should be undertaken by the segments and the State Attorney General's Office to verify that the assertions and assumptions substantiating the arguments presented in this report comply with both the spirit and intent of applicable federal and State statutes.

Other States

7. **No state from which information was received has attempted to develop a state-level student information system simultaneously within its K-12 and postsecondary education systems.**

   Chapter Two of this report described state-level student information systems operating in other states. In all instances, such systems were implemented wholly within either the K-12 or postsecondary education communities. The consultants found little evidence that the planning undertaken prior to system implementation within one portion of a state's educational community actively considered the subsequent expansion of the system to embrace other educational components within the same state *at the time the system was originally planned.* This paucity of state-level planning suggests that fiscal, political, organizational, and/or educational policy issues may have precluded cooperative planning and, that in consideration of this widespread condition, California should carefully plan the system's implementation to specifically include or exclude its various educational components in the initial implementation plan.

8. **Only one state from which information was received initiated its state-level student information systems first within K-12 and subsequently within postsecondary education.**

   Only Florida, of those states currently supporting state-level student information systems, began its state-level implementation efforts at the K-12 level. In all others, work was initially undertaken within the postsecondary educational system and (in a few instances) subsequently extended to embrace K-12.

   The most often cited reason was that K-12's pupil reporting burdens were generally less rigorous, statutorily driven, and legally encumbering than within the postsecondary education sector. For example, many K-12 school districts do not transfer student biographic/scholastic records between schools and districts as a student progresses in grades K-6. When a student leaves a school/district through transfer or

promotion his/her records are retained in local archives and, after an extended period, destroyed.

By comparison, student record keeping at the postsecondary education level is far more demanding because it may extend over longer periods, impact upon statutorily mandated/audited programs, involve the disbursement of state and federal aid monies, and directly impact future career opportunities. Whereas K-12 student records typically address only scholastic matters, student records maintained by postsecondary educational institutions document tuition and fee payments, student aid awards, honors and probationary information, coursework and attendant grades, progress towards a degree/certificate, and degrees/certificates awarded.

9. **Federal and state statutes vis-a-vis the privacy of student information were inconsistently observed among some of the states from which information was received.**

   A number of public administrators in other states appeared reluctant to address student privacy issues and/or exhibited a general lack of understanding of privacy regulations. Others exhibited a keen understanding of applicable privacy laws and the need to provide safeguards against intentional or inadvertent disclosure of student information.

10. **No state from which information was received has successfully merged K-12 and postsecondary education student information reporting into a single state-level information system.**

    Florida appears to have made the most progress in merging its K-12 and postsecondary education student record keeping activities via an interface providing for (a) the electronic exchange of transcripts between high schools and colleges or universities and (b) retroactive reporting on the collegiate progress of Florida high school graduates. Information exchange experiences in other states is varied, but typically based upon regionally linked agreements among K-12 and postsecondary segments to exchange student information.

11. **The majority of information exchanges within states that were studied took place vertically along organizational lines rather than horizontally among peer institutions.**

Student information gathered by K-12 schools or postsecondary educational institutions is rarely shared among peer schools/institutions. Within both the K-12 and postsecondary educational communities information gathered by an individual school/college is reported directly to a district office where it is typically edited, aggregated and subsequently forwarded to a state-level coordinating/administering agency. First, there appear to be only minimal horizontal information exchanges among schools/colleges within the same organizational unit, even where such institutions operate within a common geographic area. Second, little information is exchanged among institutions operating within different organizational units.

A somewhat unexpected finding that emerged during the study was that the segregation of information among organizations typically extended to the state-level where K-12 and postsecondary educational systemwide offices rarely sponsored information exchanges for their respective constituents.

12. **One of the principal motivating factors for implementing state-level student information systems in other states appears to be improved student record keeping and not improved educational policy analysis.**

Interviews with senior education officials in California and other states disclosed that the principle motivating factor in implementing new/improved state-level student information systems was the desire for improved student record keeping and not educational policy analysis. The majority of the educators interviewed on this topic concluded that the cost of implementing a state-level system could not be justified solely on the benefits of educational policy analysis. This finding is exceedingly important to the overall Comprehensive Student Information System because it suggests that implementation of the system will be enhanced if it is either (a) accompanied by a parallel state-level program designed to improve student record keeping or (b) undertaken as an incremental im-

provement to an existing state-level student information system.

Considering the current disparity in information systems development between California's K-12 and postsecondary educational systems, this finding also suggests that, as with other states, different cost justification and program implementation strategies will be necessary within the K-12 and perhaps even within the individual postsecondary educational systems. Finally, this finding virtually guarantees that system implementation will take place over differing time periods even if the overall system is designed from the outset to function as a seamless program.

13. Of those states studied, state-level direction and/or funding was required in all instances where formal state-level or systemwide student information systems were implemented.

Individual campuses, schools, districts, and even entire systems lacked the funding necessary to design, develop, and operate large-scale student records systems and the only reliable source for such funding lay in the legislative/executive branches. In many instances, initial funding for such systems was provided via special legislation with subsequent year monies provided through the annual/biennial budgeting process.

Legislation

14. New state and/or federal legislation will be required to implement the Comprehensive Student Information System.

The magnitude of the Comprehensive Student Information System program is so large and the implications of the uses to which its information may be placed are so extensive that definitive enabling legislation will be required to (a) authorize the system and its implementation, (b) provide for a state-level student identification system, (c) define the role and mission of the institutions, districts, segments, and the Clearinghouse, and (d) establish the ground rules for start-up and ongoing funding. Specific legislation will be need to:

A. *Authorize the Assignment of Student Identifiers and the Collection of Student Information:* Regardless of the student identification system employed to support the system, State and/or federal legislation will be required to authorize the assignment and use of student identifiers and facilitate the collection and distribution of student biographic, scholastic, etc. information by institutions, district offices, systemwide offices, and State agencies.

B. *Define the System's Role and Mission:* Legislation will be required to define the roles and responsibilities of participating schools/institutions, districts, segmental offices, State agencies, and the Educational Clearinghouse. Such legislation will also need to address the organization and governance of the Clearinghouse, establish the obligations of the various segments/agencies in providing information to support its ongoing operation, establish procedures for the timely review of information requests, and define information security and access privileges.

Funding

13. New State funding will be required to implement the system.

The Comprehensive Student Information System, if implemented, will call for the development of a large and sophisticated State-level student information system. Even though the cost of such a system will be somewhat lower for the postsecondary education component than K-12, it is unlikely that any segment, district, school, college, or university will be able to implement the new system without incurring additional costs. For some institutions -- within postsecondary education -- such costs can be partially accommodated by effecting incremental changes to existing student information systems using funds established for ongoing system maintenance. In a number of instances, the cost of implementing a State-level system may be partially offset by reductions in the cost of existing institutional reporting and the elimination of duplicate reporting requirements, though such savings will be small in comparison to overall system implementation costs.

Notwithstanding these potential sources of cost deferment or avoidance, the State will experience a net increase in its expendi-

The Wyndgate Group, Ltd.

tures for computing systems, equipment, and staffing if the system is implemented. The exact magnitude of the funding required to implement the system will, of course, be a function of the characteristics of the system implemented and the time frame within which it is undertaken, however, even the most rudimentary of systems will call for large one-time start-up, and subsequent ongoing operational funding.

Whether provided via the budget mechanism or through an appropriation bill -- monies will be required to fund the operation of the Educational Clearinghouse and underwrite systems development activities within the postsecondary educational segments, the State Department of Education, the K-12 districts/schools, and participating state agencies.

Recommendations

Implementing the Comprehensive Student Information System

We recommend the State proceed with implementation of the Comprehensive Student Information System, as described in this report, through enactment of enabling legislation and adoption of compatible administrative code regulations. Specifically, we recommend the following activities be undertaken to achieve this objective:

1. **Adopt a uniform, unique student identification system.**

   A. We recommend the State employ a uniform student identification system for all students enrolled in public K-12 and postsecondary educational institutions and require the institutions, districts, and segments to employ such identifiers in all existing and future student information systems.

   B. We recommend the State adopt the federal Social Security number as its official student identifier and encourage students (and parents of students) to voluntarily provide such information upon enrolling in a public or independent school/institution.

C. In those instances where students (or parents of students) decline to voluntarily provide a Social Security number, we recommend the State provide an alternative mechanism (a) permitting students to be assigned substitute identifiers and (b) requesting students previously assigned a substitute identifier to exercise all reasonable effort to present the same identifier on subsequent occasions in which the student enrolls in a California educational institution.

2. Ensure the privacy of student records.

A. We recommend the State Attorney General's Office -- working in cooperation with segmental counsel -- exhaustively evaluate the legal implications of the assignment and use of student identifiers to ensure that the Comprehensive Student Information System adheres to the letter and spirit of federal and State confidentiality statutes.

B. We recommend the State adopt legislation specifically limiting the Clearinghouse's disclosure of student information to public K-12 and postsecondary educational institutions, K-12 district offices, K-12 and postsecondary education segmental offices, public educational research agencies, and public student financial aid agencies and then, only where public policy development, policy analysis, and educational research warrants such disclosure.

C. To ensure the privacy of student information maintained within the Clearinghouse, we recommend the State adopt legislation precluding the Clearinghouse from providing, or otherwise disclosing *actual* student identifiers to *any* institution, district, segmental office, or State agency, regardless of its public service affiliation.

3. Develop a uniform student information gathering and reporting program.

We recommend the K-12, postsecondary education segments, and State educational agencies cooperatively develop a uniform student information collection and reporting program supporting comparably defined enrollment, grade progression, proficiency, objective, completion, and financial aid in-

The Wyndgate Group, Ltd

formation linked to individual student records using a unique identification/numbering system.

4. Fund system-compatible implementation activities.

To ensure timely progress in implementing the Comprehensive Student Information System, we recommend the State solicit and support segmental and intersegmental funding requests to implement the system's program where the segments can demonstrate that such requests will enhance their student information collection and reporting programs in accordance with the system's program requirements.

5. Provide for the Educational Clearinghouse

A. We recommend the State provide for the creation and ongoing operation of an Educational Clearinghouse to serve as a central repository for the system's locator information.

B. We recommend the Clearinghouse be governed by a board composed of representatives selected from the various public and independent schools, districts, colleges, universities, and agencies responsible for providing information to the Clearinghouse.

C. We recommend the Clearinghouse maintain a permanent staff to oversee the operation of the system, monitor the acquisition and disbursement of information, perform data manipulations and computations in response to information requests, manage the allocation of new student identifiers, provide responses to inquiries regarding lost/misplaced identifiers, and ensure compliance with information privacy laws and regulations.

D. To facilitate the Clearinghouse's ongoing operation, we recommend that it assess charges to information requesters for the data manipulation and computational services it provides; such charges being based upon actual and reasonable rates and used to offset the operation of the Clearinghouse.

6. **Adopt parallel implementation philosophies.**

A. Recognizing the disparate levels of student record automation currently operative within the postsecondary education and K-12 systems, we recommend the State adopt parallel implementation strategies for each segment beginning at base lines consistent with current segmental student information system capabilities and evolving into an integrated State-level program.

B. We recommend the State encourage California's independent colleges and universities to implement student information collection and reporting procedures consistent with those described in this report and participate with their public sector counterparts in gathering student Social Security numbers -- voluntarily given -- and providing comparable information to the Clearinghouse.

C. We recommend that emphasis within the postsecondary education segments be placed upon gradual and incremental changes to existing student records systems to achieve the system's reporting standards with particular attention given to assimilating its reporting requirements within the California Student Aid Commission's and California Community Colleges' proposed information systems as they emerge and develop.

D. We recommend the K-12 segment adopt a comprehensive information systems development program calling for incremental improvements to existing systems where feasible and the development of entirely new systems where existing programs cannot be readily modified to support the system's program.

E. We recommend the K-12 and postsecondary education segments attempt to offset portions of the cost of implementing the Comprehensive Student Information System though improvements in automated student record management and reduced institutional, district, and segmental reporting, with particular attention directed towards reducing/eliminating duplicative information gathering and reporting activities.

7. **Adopt a pilot implementation timetable.**

In recognition of the extended term nature of the system's implementation program and the need to refine the cost/-benefits of introducing successively greater numbers of participants, we recommend the state implement selected subsets of the program under pilot projects involving K-12 and postsecondary education segments as described below. Throughout these recommendations, we consider the site of the Clearinghouse to be a fiscal/organizational issue and that the governance procedures identified earlier in these Recommendations should be retained without regard to the Clearinghouse's physical location.

A. *Phase One:* We recommend the Comprehensive Student Information System program and Educational Clearinghouse be initially established with one or more public and independent postsecondary education segments and that the Clearinghouse be temporarily located within the California Postsecondary Education Commission during this stage of the program's development.

B. *Phase Two:* We recommend the program and Educational Clearinghouse subsequently be expanded to encompass additional public and independent postsecondary education segments and one or more public and private K-12 schools or K-12 districts. We further recommend the Clearinghouse be located temporarily within either the California Postsecondary Education Commission or the State Department of Education during this stage of the program's development.

C. *Phase Three:* We recommend the system and Educational Clearinghouse finalize its postsecondary education program by addressing all public and independent postsecondary education segments and increased numbers of public and private K-12 schools and K-12 districts until all K-12 schools participate in the program. We further recommend the Clearinghouse be located permanently within either the California Postsecondary Education Commission or the State Department of Education during this stage of the program's development.

8. Adopt enabling legislation.

We recommend the State adopt legislation authorizing the various components of the overall program, including, but not limited to:

A. Designation of the Social Security number as the State's official student identifier and requirement of its use (or the use of a substitute identifier) in all California schools and colleges.

B. Establishment of the system's program, identification of segmental reporting responsibilities and creation of a mechanism to identify (a) data elements to be reported, (b) coding conventions to be employed, and reporting frequencies to be maintained.

C. Establishment of the Educational Clearinghouse and its role, mission, and governance program, promotion of the Clearinghouse as the State's official vehicle for policy analysis and educational research, and preclusion of the Clearinghouse from providing or otherwise disclosing actual student identifiers to external information requesters.

D. Designation of the system's pilot programs and identification of accountability measures to assess the cost-beneficial aspects of the program as it evolves.

9. Promote follow-on activities.

A. We recommend the K-12 and postsecondary education segments convene a task force composed of members of the educational community including educational policy analysts, legal counsel, information systems administrators, and fiscal officers to establish the framework for continued development of the system.

B. We recommend the task force establish subcommittees to develop policy statements addressing the following issues:

1. *Information Collection and Reporting:* Identifying a definitive data element gathering and reporting pro-

gram for student enrollment progression, proficiency, objective, completion, and financial aid information

2. *Information Privacy:* Establishing the terms and conditions under which student information may be solicited by, and provided to internal and external requesters, developing unambiguous definitions for "educational research" and "policy analysis," and identifying record maintenance programs to provide an ongoing audit trail for information uses.

3. *Segmental Implementation and Operating Costs:* Developing initial and ongoing segmental maintenance cost estimates for data processing products and services, training assistance, staffing, and materials to support the system's program.

4. *Clearinghouse Implementation and Operating Costs:* Developing initial and ongoing maintenance cost estimates for data processing products and services, training assistance, staffing, and materials to support the Clearinghouse functions.

5. *Clearinghouse Governance:* Developing governance policies for the Clearinghouse, including segmental representation on the principal Clearinghouse governing body, policy review committee, and technical review committee.

APPENDIX A Sample Questionnaire Used to Solicit Information from California and Other States

General Instructions

Education Code Sections 99170-99174, enacted via Assembly Bill 880 (Vasconcellos) directed the California Postsecondary Education Commission to "develop a feasibility study plan for a study to provide comprehensive information about factors which affect students' progress through California's educational system, from elementary school through postgraduate education."

The Commission is currently conducting a study pursuant to this charge; one part of which will determine the extent to which existing student-based information systems can be employed to address the issues identified in the statute. As part of its study, the Commission is surveying all K-12 and postsecondary educational agencies to identify the student based information systems that are currently in operation and to obtain an understanding of their design and operation. The following questions will assist the Commission in fulfilling its charge pursuant to the statute.

If you know of others charged with responsibility to operate/maintain other student-based systems, please provide them a copy of the questionnaire and ask them to complete it.

Please keep the following in mind as you complete this survey :

- A separate survey form should be completed for each student-based system.
- We recommend that each survey be completed by a person who has a detailed working knowledge of the system being described.
- Where information requested on the survey is not known, mark the appropriate spaces as "Not Known" and proceed to the next question.
- Where information requested on the survey is not applicable, mark the appropriate spaces as "Not Applicable" or "N/A" and proceed to the next question.
- If insufficient space exists on the survey form to contain your response, please attach additional information to the survey.
- Where applicable, please include materials that describe the system being reported as attachments.

The Wyndgate Group, Ltd

- If you encounter difficulty completing the survey or wish clarifications, please contact Ms. Leannah Padilla at (916) 324-4991.

Completed surveys should be sent to your Task Force representative, preferably prior to December 9, 1987.

Your
Name: _____

Title: _____

Organization: _____

Mailing Address: _____

Telephone Number: _____

Date: _____

1. **Name** - What is the name of the system?

_____

2. **Clientele Served** - What clientele is addressed by the system (e.g., primary school, transfer, graduate students) ?

_____

_____

_____

3. **System Creation** - When and why was the system initially created? Did the system emerge in response to state or federal legislation, administrative action, etc.? What problem areas did the system seek to address?

_____

_____

_____

_____

_____

_____

4. **Statutory and Administrative Policy Implications** - Did any of the following have to be modified in order for your agency/office/district to create and operate this student-based information system and/or to assign and use student identifiers?

   A. Policies or Regulations? Yes___ No___

   If yes, which policies/regulations?

_____

_____

_____

_____

4. **Statutory and Administrative Policy Implications (continued)**

B. State and/or Local Law? Yes_____ No_____ If yes, which laws?

_____

_____

_____

_____

5. **The Nature and Character of Student Identifiers**

A. Are student identifiers maintained in the system? Yes_____ No_____

(if the answer is "No", please proceed to question 6 now)

B. What is the name of the identifier? _____

C. Is an identifier attached to each student's record? Yes_____ No_____

D. Is each identifier unique ? Yes_____ No_____

E. Which agency/office/institution controls the issuance of identifiers?

_____

_____

_____

F. What administrative policies or statutes govern the issuance and use of student identifiers maintained in this system? How are identifiers initially assigned? How is the use of duplicate identifiers avoided?

_____

_____

_____

_____

_____

_____

6. **Information Inventory** - What types of information are maintained within the system?

   A. Student biographic (e.g., name, address,date of birth)? Yes __ No __

   B. General scholastic (e.g., grade level, program of study)? Yes __ No __

   C. Achievement (e.g., test scores, proficiency information)? Yes __ No __

   D. Program completion (e.g. degrees, certificates, diplomas)? Yes __ No __

7. **Information Disclosure and Use Policies** - What administrative policies or statutes govern the disclosure and use of information maintained in this system?

   _____

   _____

   _____

   _____

   _____

   _____

8. **Background Information** - Please provide the following information describing the nature and characteristics of the system.

   A. Does the system contain records for every student or a subset?

      All_____ Subset _____

   B. Approximately how many student records are contained in the system?

      _____

   C. How often are the student records in the system updated?

      _____

   D. Do the records contain individual or aggregate information?

      Aggregate____ Individual____

   E. How many periods (e.g., terms, years) of historical information exist?

      _____

9. **Funding**

A. What method was used to originally fund the system and how are current operations funded?

_____

_____

_____

_____

_____

B. Estimate -- in general terms -- the cost of initial system development (include all software, hardware, and communications costs as well as personnel costs attendant to initial start-up)? _____

C. Estimate -- in general terms -- the funding support required by your agency, district, segment, institution to operate and maintain this system during the 1986-87 fiscal year (include all software, hardware, and communications costs as well as personnel and materials costs attendant to system operation)? _____

D. Estimate-- in general terms -- the funding support required by the agencies, districts, segments, institutions to collect, edit, report, etc. the information used to operate and maintain this system during the 1986-87 fiscal year (include all software, hardware, and communications costs as well as personnel and materials costs attendant to data gathering, editing, reporting etc.)?

_____

10. **Data Element Dictionary** - Many computer systems have system documentation that describes what they manipulate and use. System documentation describing the nature and character of individual pieces of information are often referred to as a *Data Element Dictionary*. If a data element dictionary or a summary of important elements exists for the system you are reporting, please append a copy and return it with this survey.

Thank you.

92

APPENDIX B - Characteristics of Student Information Systems Operating in Other States

State	Segment	Current System?	Unique Identifier	Years in Service
Alabama	K-12	No Response		
	PSE	No Response		
Alaska	K-12	No Response		
	PSE	None		
Arizona	K-12	None		
	PSE	None		
Arkansas	K-12	None		
	PSE	None		
Colorado	K-12	None		
	PSE	Yes	Not known	Not known
Connecticut	K-12	None		
	PSE	Yes	Social Security	Not known
Delaware	K-12	None		
	PSE	None		
District of Columbia	K-12	No Response		
	PSE	None		
Florida	K-12	Yes	Florida specific	
	PSE	Yes	Social Security	Not known
Georgia	K-12	None		
	PSE	No Response		
Hawaii	K-12	None		
	PSE	No Response		
Idaho	K-12	No Response		
	PSE	No Response		
Illinois	K-12	No Response		
	PSE	None		
Indiana	K-12	No Response		
	PSE	Yes	Not known	Not known
Iowa	K-12	None		
	PSE	None		
Kansas	K-12	No Response		
	PSE	None		

The Wyndgate Group, Ltd.

APPENDIX B (continued)

State	Segment	Current System?	Unique Identifier	Years in Service
Kentucky	K-12	None		
	PSE	None		
Louisiana	K-12	No Response		
	PSE	Yes	Not known	Not known
Maine	K-12	None		
	PSE	None		
Maryland	K-12	None		
	PSE	Yes	Social Security	12 years
Massachusetts	K-12	No Response		
	PSE	Yes	SSN and Name	4 years
Michigan	K-12	No Response		
	PSE	None		
Minnesota	K-12	No Response		
	PSE	Yes	Social Security	5 years
Mississippi	K-12	None		
	PSE	None		
Missouri	K-12	No Response		
	PSE	No Response		
Montana	K-12	No Response		
	PSE	None		
Nebraska	K-12	No Response		
	PSE	No Response		
Nevada	K-12	No Response		
	PSE	Yes		
New Hampshire	K-12	None		
	PSE	None	Social Security	8 years
New Jersey	K-12	No Response		
	PSE	No Response		
New Mexico	K-12	Yes	Aggregate Only	Not known
	PSE	Yes	Social Security	3 years
New York	K-12	None		
	PSE	None		
North Carolina	K-12	Yes	Social Security	4 years
	PSE	No Response		
North Dakota	K-12	No Response		
	PSE	Yes	Name & Address	9 years

APPENDIX B (continued)

State	Segment	Current System?	Unique Identifier	Years in Service
Ohio	K-12	No Response		
	PSE	No Response		
Oklahoma	K-12	None		
	PSE	Yes	Social Security	8 years
Oregon	K-12	Yes	(drop-outs only)	Not known
	PSE	No		
Pennsylvania	K-12	No Response		
	PSE	No Response		
Rhode Island	K-12	No Response		
	PSE	No		
South Carolina	K-12	No		
	PSE	No Response		
South Dakota	K-12	No		
	PSE	Yes	Social Security	10 years
Tennessee	K-12	No Response		
	PSE	Yes	Social Security	17 years
Texas	K-12	Yes	Social Security	2 years
	PSE	Yes	Social Security	Not known
Utah	K-12	No Response		
	PSE	No		
Vermont	K-12	No Response		
	PSE	No Response		
Virginia	K-12	No Response		
	PSE	No Response		
Washington	K-12	No Response		
	PSE	No		
West Virginia	K-12	No Response		
	PSE	Yes	Social Security	7 years
Wisconsin	K-12	No Response		
	PSE	No Response		
Wyoming	K-12	No Response		
	PSE	No		

The Wyndgate Group, Ltd.

APPENDIX C Candidate Comprehensive Student Information System Data Elements to be Maintained by Segmental Offices

Figure 1 Student Data Element Candidates for Inclusion in the Comprehensive Student Information System Data Bases Maintained by Segmental Offices - Linked to Progression Entries Maintained in the Clearinghouse 86

Figure 2 Student Data Element Candidates for Inclusion in the System' s Data Bases Maintained by Segmental Offices - Linked to Objective Entries Maintained in the Educational Clearinghouse 87

Figure 3 Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by Segmental Offices - Linked to Test Score Entries Maintained in the Educational Clearinghouse 87

Figure 4 Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by Segmental Offices - Linked to Completion Entries Maintained in the Educational Clearinghouse 88

Figure 5 Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by the Student Aid Commission - Linked to Student Aid Entries Maintained in the Educational Clearinghouse 88

Figure 1 Student Data Element Candidates for Inclusion in the Comprehensive Student Information System Data Bases Maintained by Segmental Offices - Linked to Progression Entries Maintained in the Clearinghouse

Element	K-12	PSE	Element	K-12	PSE
Student Identifier [1]	●	●	Co-curricular Activities - Special Prog. Status	●	●
Institution [1]	●	●	Test Scores	●	●
Year & Term [1]	●	●	Disciplinary/Probationary Status	●	●
Birthdate [1]	●	●	Credit Load		●
Gender [1]	●	●	Full Time/Part Time Status		●
Ethnicity [1]	●	●	Major Field of Specialization		●
Name	●	●	Minor Field of Specialization		●
Permanent, Legal, & Temporary Addresses		●	Degree Objective		●
Zip Code -- MSMA	●	●	Admission Type		●
Birthplace/Citizenship	●	●	Institution of Origin (HS type, diploma, & loc)		●
Visa Status	●	●	Transfer Units Accepted		●
Language Used at Home	●	●	Dependency Status		●
Single/Multiple Parent Family	●	●	Marital Status		●
Guardianship Status	●		Number of Dependents		●
Parent's Educational Attainment	●	●	Residency Type (Home or Away From Home)		●
Parent's Occupation	●	●	Resident/Nonresident (for fee purposes)		●
Number of Siblings	●	●	Total Student Charges		●
School Year/Class Level	●	●	Financial Aid Recipient		●
Time in Residence (in School System)	●		Hours Employed (per week)		●
AFDC Status	●		Student Status (new, continuing, returning)		●
Work Study Participant	●		Instructional Program Type		●
Percentage in Attendance	●		Program Type (Regular, Continuing Ed, etc)		●
Busing Status	●		Special Program		●
Disabilities	●	●	Sponsorship		●
Number of Classes in Which Enrolled	●		Support Services Utilization		●
Track	●		Honors, Awards, and Citations		●
Instructional Program [2]	●		Units Completed		●
Program Intervention Status	●		Program Completion		●
Grade Point Average	●	●			

1 These elements would be extracted from the segments' Comprehensive Student Information System data base and maintained in the Clearinghouse

2 Ninth through twelfth grades only

Figure 2 Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by Segmental Offices - Linked to Objective Entries Maintained in the Educational Clearinghouse

Element	K-12	PSE	Element	K-12	PSE
Student Identifier [1]		●	Anticipated Major Field of Study (#1)		●
Institution [1]		●	Anticipated Major Field of Study (#2)		●
Year & Term [1]		●	Anticipated Minor Field of Study (#1)		●
Objective (e.g. Associate, Bachelor's, etc.) [1]		●	Anticipated Minor Field of Study (#2)		●
Class Level [1]		●	High School of Origin (non Calif. graduate) [2]		●
Admission Type (regular, special)		●	High School GPA [2]		●
Eligibility Index		●	School Last Attended (non Calif. transfer) [3]		●
High School Honors		●	Residency Status/Visa Type [3]		●
Citizenship		●	Transfer Units		●

1 These elements would be extracted from the segments' Comprehensive Student Information System data base and maintained in the Clearinghouse
2 First time freshman applicants only
3 Transfer applicants only

Figure 3 Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by Segmental Offices - Linked to Test Score Entries Maintained in the Educational Clearinghouse

Element	K-12	PSE	Element	K-12	PSE
Student Identifier [1]		●	Year & Term [1]		●
Test or Examination Type [1]		●	Grade Level [1]		●
Test Score(s)		●			

1 These elements would be extracted from the segments' Comprehensive Student Information System data base and maintained in the Clearinghouse

The Wyndgate Group, Ltd.

Figure 4 Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by Segmental Offices - Linked to Completion Entries Maintained in the Educational Clearinghouse

Element	K-12	PSE	Element	K-12	PSE
Student Identifier [1]	●	●	Graduating GPA	●	●
Test or Examination Type [1]	●	●	Class Standing (Percentile)		●
Year & Term [1]	●	●	Major Field of Specialization (#1)		●
Degree/Certificate Type (e.g. Associate) [1]	●	●	Major Field of Specialization (#2)		●
Class Level [1]	●	●	Minor Field of Specialization (#1)		●
Institution [1]	●	●	Minor Field of Specialization (#2)		●
Honors and Awards	●	●			

1 These elements would be extracted from the segments' Comprehensive Student Information System data base and maintained in the Clearinghouse

Figure 5 Student Data Element Candidates for Inclusion in the System's Data Bases Maintained by the Student Aid Commission - Linked to Student Aid Entries Maintained in the Educational Clearinghouse

Element	K-12	PSE	Element	K-12	PSE
Student Identifier [1]		●	Grade Level [1]		●
Test or Examination Type [1]		●	Loan/Grant Type [1]		●
Year & Term [1]		●	Institution [1]		●

1 These elements would be extracted from the segments' Comprehensive Student Information System data base and maintained in the Clearinghouse

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

THE California Postsecondary Education Commission is a citizen board established in 1974 by the Legislature and Governor to coordinate the efforts of California's colleges and universities and to provide independent, non-partisan policy analysis and recommendations to the Governor and Legislature.

Members of the Commission

The Commission consists of 15 members. Nine represent the general public, with three each appointed for six-year terms by the Governor, the Senate Rules Committee, and the Speaker of the Assembly. The other six represent the major segments of postsecondary education in California.

As of January 1988, the Commissioners representing the general public are:

Mim Andelson, Los Angeles
C. Thomas Dean, Long Beach, *Chairperson*
Henry Der, San Francisco
Seymour M. Farber, M.D., San Francisco
Helen Z. Hansen, Long Beach
Lowell J. Paige, El Macero
Cruz Reynoso, Los Angeles, *Vice Chairperson*
Sharon N. Skog, Palo Alto
Stephen P. Teale, M.D., Modesto

Representatives of the segments are:

Yori Wada, San Francisco; appointed by the Regents of the University of California

William D. Campbell, Carlsbad, appointed by the Trustees of the California State University

Borgny Baird, Long Beach; appointed by the Board of Governors of the California Community Colleges

Harry Wugalter, Thousand Oaks; appointed by the Council for Private Postsecondary Educational Institutions

Kenneth L. Peters, Tarzana; appointed by the California State Board of Education

James B. Jamieson, San Luis Obispo; appointed by California's independent colleges and universities

Functions of the Commission

The Commission is charged by the Legislature and Governor to "assure the effective utilization of public postsecondary education resources, thereby eliminating waste and unnecessary duplication, and to promote diversity, innovation, and responsiveness to student and societal needs."

To this end, the Commission conducts independent reviews of matters affecting the 2,600 institutions of postsecondary education in California, including Community Colleges, four-year colleges, universities, and professional and occupational schools.

As an advisory planning and coordinating body, the Commission does not administer or govern any institutions, nor does it approve, authorize, or accredit any of them. Instead, it cooperates with other State agencies and non-governmental groups that perform these functions, while operating as an independent board with its own staff and its own specific duties of evaluation, coordination, and planning.

Operation of the Commission

The Commission holds regular meetings throughout the year at which it debates and takes action on staff studies and takes positions on proposed legislation affecting education beyond the high school in California. By law, the Commission's meetings are open to the public. Requests to address the Commission may be made by writing the Commission in advance or by submitting a request prior to the start of a meeting.

The Commission's day-to-day work is carried out by its staff in Sacramento, under the guidance of its interim executive director, Kenneth B. O'Brien, who is appointed by the Commission.

The Commission publishes and distributes without charge some 40 to 50 reports each year on major issues confronting California postsecondary education. Recent reports are listed on the back cover.

Further information about the Commission, its meetings, its staff, and its publications may be obtained from the Commission offices at 1020 Twelfth Street, Third Floor, Sacramento, CA 98514; telephone (916) 445-7933.

A COMPREHENSIVE STUDENT INFORMATION SYSTEM

John G. Harrison

California Postsecondary Education Commission Report 88-32

ONE of a series of reports published by the Commission as part of its planning and coordinating responsibilities. Additional copies may be obtained without charge from the Publications Office, California Postsecondary Education Commission, Third Floor, 1020 Twelfth Street, Sacramento, California 95814-3985.

Recent reports of the Commission include:

88-15 Update of Community College Transfer Student Statistics Fall 1987: University of California, The California State University, and California's Independent Colleges and Universities (March 1988)

88-16 Legislative Update, March 1988: A Staff Report to the California Postsecondary Education Commission (March 1988)

88-17 State Policy for Faculty Development in California Public Higher Education: A Report to the Governor and Legislature in Response to Supplemental Language in the 1986 Budget Act (May 1988)

88-18 to 20 Exploring Faculty Development in California Higher Education. Prepared for the California Postsecondary Education Commission by Berman, Weiler Associates:

88-18 Volume One: Executive Summary and Conclusions, by Paul Berman and Daniel Weiler, December 1987 (March 1988)

88-19 Volume Two: Findings, by Paul Berman, Jo-Ann Intili and Daniel Weiler, December 1987 (March 1988)

88-20 Volume Three: Appendix, by Paul Berman, Jo-Ann Intili, and Daniel Weiler, January 1988 (March 1988)

88-21 Staff Development in California's Public Schools: Recommendations of the Policy Development Committee for the California Staff Development Policy Study, March 16, 1988 (March 1988)

88-22 and 23 Staff Development in California: Public and Personal Investments, Program Patterns, and Policy Choices, by Judith Warren Little, William H. Gerritz, David S. Stern, James W. Guthrie, Michael W. Kirst, and David D. Marsh. A Joint Publication of Far West Laboratory for Educational Research and Development • Policy Analysis for California Education (PACE), December 1987:

88-22 Executive Summary (March 1988)

88-23 Report (March 1988)

88-24 Status Report on Human Corps Activities. The First in a Series of Five Annual Reports to the Legislature in Response to Assembly Bill 1820 (Chapter 1245, Statutes of 1987) (May 1988)

88-25 Proposed Construction of the Petaluma Center of Santa Rosa Junior College: A Report to the Governor and Legislature in Response to a Request for Capital Funds for Permanent Off-Campus Center in Southern Sonoma County (May 1988)

88-26 California College-Going Rates, 1987 Update: The Eleventh in a Series of Reports on New Freshman Enrollments at California's Colleges and Universities by Recent Graduates of California High Schools (June 1988)

88-27 Proposed Construction of Off-Campus Community College Centers in Western Riverside County: A Report to the Governor and Legislature in Response to a Request of the Riverside and Mt. San Jacinto Community College Districts for Capital Funds to Build Permanent Off-Campus Centers in Norco and Moreno Valley and South of Sun City (June 1988)

88-28 Annual Report on Program Review Activities, 1986-87: The Twelfth in a Series of Reports to the Legislature and the Governor on Program Review by Commission Staff and California's Public Colleges and Universities (June 1988)

88-29 Diversification of the Faculty and Staff in California Public Post-secondary Education from 1977 to 1987: The Fifth in the Commission's Series of Biennial Reports on Equal Employment Opportunity in California's Public Colleges and Universities (September 1988)

88-30 Supplemental Report on Academic Salaries, 1987-88: A Report to the Governor and Legislature in Response to Senate Concurrent Resolution No. 51 (1965) and Subsequent Postsecondary Salary Legislation (September 1988)

88-31 The Role of the California Postsecondary Education Commission in Achieving Educational Equity in California: The Report of the Commission's Special Committee on Educational Equity, Cruz Reynoso, *Chair* (September 1988)

88-32 A Comprehensive Student Information System, by John G. Harrison: A Report Prepared for the California Postsecondary Education Commission by the Wyndgate Group, Ltd. (September 1988)